THE BOOK WAS
DRENCHED

LIFE INSURANCE IN INDIA

LIFE INSURANCE IN INDIA

ITS HISTORY, LAW, PRACTICE, AND PROBLEMS

By

R. M. RAY, Ph.D.

With a Foreword by

Sir CHUNILAL V. MEHTA, K.C.S.I.

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FOREWORD

BY

SIR CHUNILAL V. MEHTA, K.C.S.I.

I HAVE accepted with pleasure the invitation to write a foreword to Dr. R. M. Ray's book "Life Insurance in India." This was a thesis submitted by him to the Bombay University for which he has been awarded the Ph.D. Degree.

The book covers a very wide field tracing the development of Insurance from the earliest times, and it may not be generally known that the Codes of Manu in India and of Hammurabi in Babylon provided the earliest approach to the subject. Dr. Ray has also shown how deeply Life Insurance has penetrated into the social and economic life of India.

But the book is more than a compilation of records and more than the tracing of the development and the presentation of the problems of Life Insurance. It is a valuable addition to the existing textbooks on the subject and serves alike the tastes of those seeking historical facts and the needs of the student wishing to further his knowledge of the technical features of Life Insurance while at the same time acquainting himself with current methods of administration of the business.

The author has also brought to light in his volume certain weaknesses which exist in the conduct and control of Life Insurance in India and in doing so he has rendered a useful service.

I wish this book the success it undoubtedly deserves not only for its intrinsic merits but for the intimate reason that Dr. Ray started and completed this work while serving with the New India Assurance Co., Ltd., with which I have a close association.

BOMBAY, *25th November* 1940

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Preface

As a worker in an Indian insurance office, I have often felt the difficulty of finding an adequate solution of many of our problems in the principles and practice of insurance as they are adumbrated in foreign books. This study is an attempt to remove this difficulty, which, I am sure, other workers in Indian insurance must have felt. In it I have discussed the problems of Indian insurance under the broad heads into which they naturally fall. In developing the theory and discussing the problems, I have drawn extensively on the experience available in our country. I have also tried to present as complete and comprehensive a history of the growth of Indian insurance as I could.

I have tried to meet the requirements of the insurance worker as well as of the layman who wants to understand the principles and practice of insurance as followed in this country. I shall regard my labours amply rewarded if the present work encourages an extensive study of insurance in this country.

I have secured information from all possible sources which I could reach from books, magazines, insurance companies in India and abroad and persons connected with the business of insurance. I take this opportunity of acknowledging my indebtedness to them collectively, though in places I have indicated my debt to individual publications.

My thanks are specially due to Mr. H. E. Jones, F.F.A., A.I.A., Mr. G. S. Marathe, M.A., A.I.A., Mr. S. B. Cardmaster, Mr. Tanubhai D. Desai, B.A., LL.B., and Mr. T. Bagchee, B.Sc. (Cal.), B.A. (Lond.), for their valuable suggestions and encouragement in the preparation of this work. These gentlemen are not, however, in any way responsible for the views expressed in the book or for any errors that may be in it.

To Mr. N. R. Nair, C.A., LL.B., who, with meticulous care, prepared the typescript and assisted me in reading the proofs and preparing the Index, I am deeply grateful.

I cannot conclude this preface without acknowledging my deep gratitude to Professor D. Ghosh, M.A. (Cantab.), Barrister-at-law, formerly Reader in Economics, University of Bombay, now

Senior Professor of History and Economics, Baroda College, Baroda. His clear insight into the fundamentals of the problem, his frequent suggestions and acute criticisms have been of great value to me in organising my work and improving its presentation. Indeed my work could not have been carried out but for his constant help, guidance and encouragement.

My grateful thanks are due to the Indian Life Assurance Offices Association for their encouragement and tangible assistance in the production of this work.

I also acknowledge my indebtedness to the University of Bombay for the substantial financial help it has granted towards the cost of publication of this book.

R. M. Ray

The author will be thankful if his attention is drawn to any inaccuracies or shortcomings. Suggestions for improving the value of the book will be greatly appreciated.

CHAPTER I

Introduction

THE object of insurance is the mitigation of suffering on the happening of a contingent event. To achieve this end, the principle of co-operation is employed, the loss suffered by a few being distributed over the community at large.

Records of the origin and early history of insurance are practically non-existent. It is therefore difficult to trace the beginning of insurance. Admirable work, however, has been done by several writers, in particular by Dr. C. F. Trenerry, the author of "The Origin and Early History of Insurance." According to him, the earliest form of insurance seems to have been a sort of "marine and land insurance," very much akin to modern marine insurance. Travellers by land and sea were insured against the risk of losing property to which they were naturally exposed in times when robbery of caravans and piracy on the open sea were considered as honourable means of livelihood. Many traders could not meet the engagements of the principals and according to their contracts became, along with their families, slaves of the latter.

Attempts to relieve this intolerable situation were made in Babylonia and India at a fairly early stage of their history. We find provisions in the codes of Hammurabi and of Manu whereby a trader who was robbed on a journey through no negligence or connivance on his part was directed to be set free from debt in respect of both capital and interest on making a solemn declaration. The Greeks, too, evolved, somewhere about the middle of the fourth century B.C., a complex form of maritime contract which they must have derived from the Phœnicians and Rhodians. These were the first approaches to the modern system of contracts of insurance, by which the risks of trade were distributed between different parties.

The following summary of the provisions of the codes of Hammurabi and Manu, already referred to, shows how clearly the contracts of bottomry and respondentia were approximated.[1]

[1] For the modern definition of the contracts of Bottomry and Respondentia, see Encyclopædia Britannica.

Codes of Hammurabi	*Manab Dharma Shastra*
1. The contract applied to land traffic only.	1. The contract applied to sea-borne and land-carried traffic.
2. The contract was for a true loan and not a partnership, and in others for a loan with a limited partnership.	2. The rate of interest instead of being 100 per cent. in all cases was arranged with regard to the risks to be run and the length of time for which the money was required.
3. The merchandise or money advanced was under the custody of and used by the trader and not retained by the lender.	3. This rate of interest (or price of risk) was fixed by valuers skilled in sea voyages or journeys by land who were able to proportion the rate to the time required and to the risk to be incurred.
4. The rate of interest was very much higher (usually 100 per cent.) than that charged on ordinary loans which was at that time limited to 20 per cent., the period of time having no effect.	4. This rate of interest was specified in the contract.
5. The trader was free from liability for the debt on the happening of a contingency provided for in the contract.	5. The borrower was excused payment not only if he was robbed of his goods but also if the goods did not arrive in good order at the place or time agreed upon by the contracting parties.

A contract so comprehensive as that of the Indian contract and applying equally to sea and land traffic is not referred to even by the Greeks.[1]

The first reference by the Greeks, about the year 350 B.C., is to a complex form of maritime contract only. Presumably it was got from the Phœnicians and Rhodians who being primarily concerned with maritime trade modified the Babylonian land contract to suit their requirements. It is also believed that trade used to be carried on between Babylonians and Indians, and therefore this protective principle must have become known to both about the same time and was developed according to existing

[1] "It has been stated that the Sanskrit term *Yoga-Kshema*, meaning Insurance, is found in Rig-veda and that some kind of communal insurance was practised by the Aryan tribes of India nearly 3,000 years ago."—"Human Side of Insurance," by F. J. Maclean, page 1.

needs. It is also possible that the contracts were developed independently, as both the countries must have been carrying on trade amongst other peoples.

The early development of insurance was spasmodic and usually in fields other than life. Man's attention was directed against those risks which at the moment seemed most to require it. He could see that the vessel in which he did his trade might never come home. His house might be burnt down or broken into by robbers and bandits. These were contingencies that might happen any day; but death and its consequences were matters somewhat remote and beyond his control and extremely disagreeable to contemplate. One could provide for one's dependents by accumulating wealth; and though this method was often unsatisfactory the alternative notion of insurance did not cross his mind.

But our forefathers who were averse to thinking about death as an insurance risk had not the same objection to making arrangements for a proper and decent burial. They believed that a comely departure from this world was necessary to procure the deceased peace and happiness in his next birth. This religious faith found expression in the ancient Roman Collegia. Some later institutions, though chiefly concerned with burial funds, extended their activities so as to protect the living and organised help for their needy members. The Roman Collegia are an example of such an institution. It is, however, improbable that life insurance or annuity business was transacted by the Romans, although during the middle of the fourth century A.D. an attempt was made by Ulpian, Roman Prefect, to prepare a mortality table.

The next important attempt at insurance, in chronological order, was made by the Anglo-Saxon Guilds, popularly known as the Insurance Associations of the Middle Ages. There is evidence that members of these early guilds, known as the Frith Guilds, bound themselves to render mutual support in the event, particularly, of fire destroying property, or shipwreck, and to this extent created a definite insurance principle in respect of two important human needs. "Membership was confined to followers of the common religion. All classes seem to have been united in the Frith Guilds and each man paid a fixed amount to the common fund which was expended on feasts, fines, mass for the dead, burials

and brothers in need."[1] During the Middle Ages the mediæval craftsman not only made his own wares but was his own agent in selling them, and thus had a dual capacity as manufacturer and merchant. Such people when they became numerous in the Merchant Guilds separated and formed Craft Guilds. With the progressive specialisation in trade such Crafts Guilds grew up all over Europe.

Modern life insurance commenced first in England and Europe about the sixteenth century but the early attempts, though they resembled modern life insurance, were actually gambling, because the basis of life insurance business, i.e., mortality tables, were practically unknown. Further, the use of loan capital for production purposes did not develop on any large scale till about the beginning of the eighteenth century. Investments of life insurance funds were therefore well-nigh impossible. Thus we can broadly divide the development of life insurance into two periods, (*a*) attempts at co-operation prior to the eighteenth century which may be regarded as the precursors of modern insurance, and (*b*) the modern period of scientific insurance which began in the eighteenth century.

Life insurance business, as it is known to-day, is a heritage from England. The industrial revolution accelerated the pace. The continent of Europe, America and Canada followed suit and have in course of time developed individual systems of their own.

The early insurance companies in India issued policies in sterling on the lives of Europeans who were engaged in the services of the East India Company and later on in those of the Government of India. A few companies who attempted to write business on Indian lives either came to grief sooner or later or were absorbed by others. The failure of two large English companies, the European and the Albert, about the year 1870, affected a large number of persons in this country who had reposed their faith in them. Consequent upon this, an attempt was made to float companies in India to underwrite business on Indian lives also. Thus the "Bombay Mutual" was established in 1871. It was closely followed by the "Oriental" in 1874. The Colonial Life Assurance Company also decided, in 1870, to extend its business to Indian lives and it is from this year that modern Indian

[1] "Human Side of Insurance," by F. J. Maclean, page 5.

insurance may be dated. There are several reasons for the slow development of the modern system of insurance in India.

(1) The joint family system of the Hindus applies the principle of insurance to its maximum advantage. It automatically provides for invalids and widows whenever necessary.

(2) For centuries very little had happened to disturb the Indian way of thinking, and thus tradition had secured an unusual stronghold on the people. Life assurance appeared to conflict with their spiritual and philosophical ideas which were thousands of years old, and the notion of providing for one's dependents by means of an instrument which functions on the death of a person was a most disturbing one.[1]

(3) Insurance means accumulation of funds and their investment on long term. But until recently opportunities for such investments were limited in this country.

(4) The influence of Islam, too, is against usury. As the modern system of insurance allows full play to interest it was unlikely to find favour among the Moslems of this country and this is an important hindrance to progress.

(5) The poverty, ignorance and prejudice of Indians have hindered the growth and expansion of insurance business in India.

In the next chapter we will briefly narrate the historical development in India of the present system of life insurance from its early beginnings, of which so little is known, to its present stage.

[1] Mahatma Gandhi lapsed his life policy and does not advocate life insurance.—"Atma Katha" in Gujerati, Part II, Chapter IV, pages 14 to 16.

CHAPTER II

A Brief History of Indian Insurance

THE early history of insurance companies, including foreign companies working in India, is not familiar even to people otherwise well informed on insurance matters in our country. The reason for this is the absence of any authoritative work on the subject.[1] The general ignorance about the earlier insurance companies of India is, therefore, not surprising.

It is not intended to fill in this gap fully in this chapter. Even if we wished to do so, it is not possible to deal with the history of Indian insurance exhaustively within the precincts of a single chapter. The subject is fairly extensive and really deserves a separate volume for itself. However, we shall try to present a brief and, as far as we have been able to gather information, a fairly complete summary of the growth of insurance in this country.

The history of Indian insurance may be divided into five periods:

1. The early stage up to 1870, of which little is known.
2. The period 1870 to 1900—period of stable growth.
3. The years from the opening of the twentieth century to 1912—a period of mushroom growth under the auspices of the *swadeshi* movement, resulting in several failures and the passing of the Insurance Act in India.
4. From 1913 to 1930—the period of trial.
5. The present era.

The authoritative history of Indian insurance began to be recorded for the first time when the Government of India started publishing the Returns of Life Assurance Companies in India in the year 1914.[2] The first issue of this publication contains a reference

[1] We find the following statement in the preface of the Indian Insurance Manual (published by Messrs. Thacker Spink & Co., Calcutta) in 1907: "This publication has been called into existence by the entire absence of any suitable treatise dealing with the business of Life and Fire Insurance in India."

[2] The name was changed from the ninth issue to "The Indian Life Assurance Year Book" and from the 15th issue to "The Indian Insurance Year Book."

to the early history of insurance in this country. We may quote it just to show the extent of ignorance in this subject even in Government Departments.

> "It will be seen that the oldest of the Indian companies were established in Madras about 80 years ago.[1] Bombay has none older than the Bombay Mutual, the Oriental, and the Bombay Widows Pension Fund which were established about 40 years ago. Life assurance seems not to have been started in Bengal until much later, and it was not until 1906 that many companies were established either in that Presidency or elsewhere in India."

That this statement is obviously not correct is clear from the following statement made by Mr. N. R. Sarkar, Chairman of the Reception Committee, to the Indian Insurance Conference held in Calcutta in 1937 in his welcome speech :—

> "As far back as 1818 an insurance company, named Oriental Life Assurance Company, was started in Calcutta mainly by Europeans. Eventually this company failed in 1834 and was transformed into 'New Oriental'. Let me add here that this company has no connection whatever with our premier Indian company of Bombay. It was through the efforts of Babu Muttylal Seal that the company was prevailed upon to accept Indian lives. Since then Indian enterprise made very good progress in Bengal and leading people of the province such as Dwarkanath Tagore, Ramtanu Lahiri and Rustomji Cowasji took an active part in the development of insurance business in this country. It was also left to a great reformer and eminent son of Bengal, Raja Ram Mohan Roy, to direct the nation's attention to the need of protection of widows and orphans, and as early as 1822 he issued an appeal through the columns of the *Calcutta Journal* requesting the wealthy Hindus of Calcutta to start an institution for the maintenance of the poor widows."

We find a reference to this company and also to another Indian life office in the Insurance Encyclopædia by Walford published in 1872-80.

> "Bombay Life Assurance Company was founded in Bombay on 1st May 1823. The company issued no whole-term life policies. It had three classes of short-term insurance, viz., for one year, not renewable without the certificate of health—Premium: Aged 30—3.4 p. c. For 3 years renewable without fresh certificate of health—Annual premium: Aged 30—3.7 p. c. For 5 years renewable without fresh certificate of health—Annual premium: Aged 30—4 p. c."

Nothing more is known about the company.

[1] Madras Equitable (Estab. 1829) and Madras Widows (Estab. 1834), which went into liquidation after the war.

The next oldest company which we come across is the Madras Equitable, to which reference has already been made in the extract quoted from the Returns of Life Assurance Companies (1914). This was established in 1829 and up to recent times was given exemption from submitting returns under the provisions of the 1912 Act as it was governed by a separate Act of the Madras Legislature. It, however, stopped issuing policies in 1910 and went into liquidation shortly after the termination of the Great War, owing to the heavy depreciation of its investments, and decrease in its income on account of the company having stopped the issue of new policies. The next company to be established was a mutual concern in Madras. Its name was Madras Widows, and it commenced business in 1834. This company also went into liquidation after the war, the cause being lack of supervision resulting in defalcation of funds. This small concern had also stopped issue of policies for a long time before it went into liquidation.

The next two companies to be established were the Christian Mutual in the Punjab and the Tinnevelly Diocesan Council Widows' Fund in Madras in the years 1847 and 1849 respectively. These two companies still transact business, though on a small scale. The first had 2,262 policies in force on 31st December 1938, assuring Rs. 27,75,000. It had a premium income of Rs. 1,27,000 and its life fund stood at Rs. 9,12,000. It declared a reversionary bonus of Rs. 12-8 per thousand. The second company, i.e., the Tinnevelly, had 268 policies on its books as on 31st December 1936.[1]

From Walford's Encyclopædia, we find that two English companies, the Albert Life Assurance Company and the European Life Assurance Company, had extensive connections in India during the first period of Indian insurance. In 1860 the former took over the Medical Invalid and General, which had been incorporated in the United Kingdom in 1841 and had acquired a large connection in India. The Medical had itself taken over the New Oriental of Calcutta in 1853 and also another company known as the Agra. Thus we find a mere reference to a company named Agra and have no further information as to its place of establishment and the nature and amount of business done. The Albert Life Assurance Company absorbed two other companies which had Indian business

1 The Indian Insurance Year Book, 1938.

connections, their names being Family Endowment and Indian Laudable. The former company was founded in 1835.

The following extract from Walford's Encyclopædia is illuminating :—

> "On the occasion of the taking over the business of the Medical Invalid in 1860, which company had a large connection in India, the Albert commenced very active operations there, under the direction of W. F. Ferguson, who had been the Manager of the New Oriental and Mr. P. M. Tate, who had been the Indian Manager of the Medical. In 1861 Indian business of Family Endowment was added and in 1865 the business of Indian Laudable. Hence the company had obtained such a position as no British company ever had, or probably ever will obtain there. The profits of that branch were estimated at from £20,000 to £30,000 p. a. The head office was in Calcutta and there were branches in Bombay and Madras."

The Universal Life Assurance Company was established in England in 1836 and commenced writing business in India in 1840. It appears that this company continued to transact business for a long time till it was taken over by the North British in May 1901. Many of the Universal policies issued in India are still in force under the Calcutta office of the North British. The company had issued policies in India for sums assured exceeding in total Rs. 10,00,00,000.[1]

Another English life insurance company that was working in India at that period was the Colonial Life Assurance Company. This company was established in 1846 under the auspices of the Standard Life Assurance Company. The original prospectus of the Colonial said: "The Colonial Life Assurance Company has been established for the purpose of extending to the Colonies of Great Britain and to India the full benefit of life assurance, and for the purpose of giving increased facilities to persons visiting or residing in foreign countries." As stated before, the Colonial Life Assurance Company was started in 1846 and at once began operations in India. It adopted the policy of appointing agents with local boards, which were at first established in Calcutta, Bombay, Madras and Colombo.

During the early years, assurances were only accepted on the lives of Europeans or the descendants of Europeans born in India.

[1] Letter of North British and Mercantile Insurance Co., Ltd., dated 23rd August 1939.

The rate tables constructed were distinctly on the heavy side. This was probably due to the influence of heavy mortality of troops in India, as evidenced by the official Army Reports. Nevertheless, the business done was considerable; possibly because of the fact that the field of insurance was yet unexplored and competition nearly non-existent.

Due to great expansion of business, the Standard Life Assurance Company decided to absorb the Colonial Life Assurance Company in 1866. Thereafter business was carried on in the name of the Standard Life Assurance Company. This company is still with us to-day, although recently, i.e., since November 1938, it has ceased to underwrite new business in India.

Just like the Colonial Life Assurance Company, the Royal Insurance Co., Ltd., was established in 1845 in the U.K. and commenced writing fire and life business in India within three years of its registration. Agents were appointed in Calcutta within twelve months of the commencement of the business. It appears that in the beginning attention was paid to fire business only, but the early records of this company are not available and it is believed that they commenced life business about the year 1860. The first life policy issued by the Bombay Branch is dated 1871.

In the year 1852 the Bengal Christian Family Pension Fund was established. It was run along the lines of other Christian Funds, already referred to, and was exempted from submitting returns under the 1912 Act. In point of fact, therefore, this company was in existence when the statement referred to in the beginning of the chapter was made:

> ". . . . Life insurance seems not to have been started in Bengal until much later, and it was not until 1906 that many companies were established either in that Presidency or elsewhere in India."

The Liverpool and London and Globe Insurance Co., Ltd., which was incorporated in the U.K. in 1836, commenced business in India in 1853. Sir Charles Forbes was appointed as the first Agent. The agency was later taken over by Messrs. Forbes, Forbes, Campbell & Co. It accepted only European lives and commenced to take Indian lives very recently, since 1929 or 1930. It is of interest to note the early extra premiums charged to Europeans for residence in

India—£1 per cent. for Whole Life, 10*s*. for 10 years' Endowment, 15*s*. for 15 years' Endowment and £1 for 20 years' Endowment life policies.

This company did nominal life business in India, mainly to oblige good agents of the company for other classes of business, and had 155 policies assuring Rs. 9,56,000 and a premium income of Rs. 44,000 at the end of the financial year ending in 1938. In consideration of the small life business connection in India the company decided to stop writing new life business to save the trouble of satisfying the requirements of the Insurance Act of 1938.

The North British and Mercantile Insurance Company commenced fire business in India in 1861 and began to underwrite life assurance business from 1864 and is still with us.

Another company that commenced doing life business in India in 1864 was the London Assurance. It did not at any time transact a large volume of life business and its policies were practically all written on European lives. It ceased to transact business along with a few other companies, of whom reference will be made later, to avoid the necessity of making returns under the Indian Insurance Act of 1912. At the present time it has only a few policies in existence in India.[1]

This period of about half a century, commencing from the establishment of the New Oriental in 1818 and ending about 1870, covered the early attempts to propagate modern scientific insurance in India on the lines of the English model. This was a period of trial and many pioneer companies, Indian and English, underwriting business in India, were either absorbed by other companies or went into liquidation. The same period was marked by intense development of the business of life insurance in England. Frauds were practised on a large scale and by no means against insurance companies alone. Many bubble companies were established for life assurance and annuities were sold for much less than they could be given for if the companies were to be really solvent. Promoters opened imposing offices, advertised extensively, collected large amounts and in due course disappeared. During a period of 44 years from 1824 to 1868, 285 life offices were formed in England of which 174 had ceased to exist for various reasons by 1870.

1 Letter of the London Assurance, dated 22nd September 1939.

There was, however, another side of the picture. More trustworthy information as to mortality was being accumulated and was being analysed on sounder lines than formerly. The actual rate of mortality was rapidly improving. On the one hand it made lower rates of premium possible and on the other produced large profits from the old premiums at high rates. Finally there was legislative encouragement in place of parliamentary difficulties which were formerly encountered. A portion of the income was exempted from income-tax of those who had recourse to that easy, certain and advantageous mode of providing for their families by assuring their lives, that portion being the amount which they invested in life insurance. This exemption was highly beneficial to life offices. This recognition of the system of life insurance, quite apart from the financial advantages to policyholders, did very much to call attention to it, and to win for it a large measure of appreciation by the public.

During the decade following 1860 a large number of indiscriminate amalgamations took place. High prices were paid for taking over the business of smaller and unsound companies. Bad management and bad selection of lives became the order of the day. The result was that a large number of insurance companies, including some of the most outstanding ones and with wide ramifications of business, went into liquidation. The public lost heavily in these failures. Great indignation prevailed and Parliament passed an Insurance Act in 1870. The main provisions of this Act were:

1. That all life offices should make uniform statements every year in a prescribed form, and actuarial reports at longer intervals.
2. Every new company should make a deposit of £20,000, a provision not intended primarily as a security for policyholders but as a check on the formation of companies for the benefit of promoters. The deposit was to be returned when the life fund accumulated out of premiums amounted to £40,000.
3. To require companies doing other business besides life insurance to keep a separate life fund.
4. To afford policyholders legal remedies for their protection.

The Act of 1870 was a wise one and the passing of the Act marked the opening of a period of prosperity and great development in the business of life insurance in England.

In India no attempt was made to legislate for the control of life insurance business and matters were allowed to continue as previously. It appears, however, that pressure was brought to bear on the Government of India to establish a State-controlled life assurance company in India, but to no avail. The Government of India published certain arguments against the formation of such a company in India. The arguments are reproduced below, and throw an interesting sidelight on opinion about the system of life insurance in general in this country.

1. The Government of India is not in possession of any sufficient statistics on the value of native lives and as European vital statistics cannot be adopted for natives of this country, it will be long before materials of the kind can be compiled; meanwhile in the absence of this information it would be impossible to construct the actuarial tables on which a system of assurance must be based.
2. Even with accurate statistics of native lives the data for the ascertainment of age of natives of the country are generally uncertain.
3. The people themselves are not prepared for the practice of assurance; so that it would be inoperative beyond the Presidency towns and the comparatively small body of native gentlemen throughout the country who are accustomed to European ideas. The number who would avail themselves of the concession would therefore in all probability be infinitesimally small as compared with the public at large and would not be such as to justify the constitution of an insurance office.
4. Unless the institution were largely patronised by the public its cost of management would bear a large proportion of its income and to guard the Government from loss on this account and also on account of the uncertainty as to the value of native life, it would be necessary to fix upon a low rate of interest. This would prove an additional

discouragement to assurance in a country where people are accustomed to high return on their money.

5. To start a scheme of the kind, which might either occasion loss to the exchequer or become abortive from its being unsuited to the state of the country would cast discredit on the Government.
6. There would be special difficulties in the way of procuring the necessary certificates of death and the inexpediency of any system of assurance by which a motive could be given for the shortening of life has been noticed by native gentlemen themselves.

Coming back to our historical theme, we find that amongst the companies that failed just prior to 1870 were the European and the Albert Life Assurance Companies, about which we have written earlier. The failure of these companies had adverse effects in India. Many policyholders lost heavily as a result of this. It was then that some influential citizens of Bombay decided to co-operate and form insurance companies with the object, first, of controlling the business themselves so that the chances of mismanagement may be minimised and, secondly, of accepting Indian lives on the same rates as European lives. Although there was no legislative enactment in India as in the United Kingdom in 1870, the year stands out as a landmark in the history of Indian insurance, separating the early period of pioneering attempts at life insurance from the subsequent period of steady development. The two Indian companies which started work about this time are still in existence and, indeed, occupy positions in the forefront.

The Bombay Mutual Life Assurance Society was registered under the Indian Companies Act, X of 1866. In its first Articles of Association it says:

> "All the affairs and every transaction of the Society must be open to the most minute inspection of every member. Each member may take part in management. Business to be conducted with strictest economy. All profits that may accrue must be awarded exclusively to those whose contributions have caused them and to each in due proportion of his contribution."

The first Honorary Secretary and Treasurer of this company was Mr. G. A. Summers. In his first speech to the members of the society, he said:

> "The recent sad failures have taught a wholesome lesson; for they have had the effect of making the public very properly pause and reflect when

they have met with such announcements as 'Extraordinary Bonuses', 'Special Privileges', 'Peculiar Features', etc. They do very well for ingenious advertisements or prettily got up little show-cards, with Almanac attached, but fortunately with past experience so prominently before us there are few thoughtful men who will venture on a life-long bargain with any assurance office until they have satisfied themselves by first comparing the glowing promises of the prospectus with the figures of the balance-sheets. Government may do something to protect the unwary, but the real safeguard of the assurer is in his own hands, if he will only take the precaution never to entrust his money to the keeping of an office which denies him the liberty of examining its accounts and then judging for himself. Only recently we have read of the failure of one of these institutions, which has been the cause of widespread beggary and misery, a failure too, which almost immediately followed the Actuary's report that the society was in a prosperous condition."

As a matter of historical interest the rates of premiums then charged by the Bombay Mutual, and a copy of its first balance-sheet are given below.

Rates of Monthly Premiums

Age	Amount	Age	Amount	Age	Amount
	Rs. a. p.		Rs. a. p.		Rs. a. p.
20	2 7 6	35	3 7 6	50	5 5 6
25	2 12 6	40	3 14 6	55	6 5 6
30	3 1 6	41	4 1 0	60	7 9 6
31	3 3 0	45	4 9 6		

Balance-Sheet of the Bombay Mutual made up to 22nd July 1871

LIABILITIES.	Rs. a. p.	ASSETS.	Rs. a. p.
To the present estimated value of Rs. 66,500 assured under 19 policies ..	29,568 0 0	By present estimated value of Rs. 2,981-15-0 per annum premiums payable under the existing 19 policies.	45,879 0 0
To balance in favour of Society	17,526 8 1	By Cash deposited in Government Savings Bank ..	1,200 0 0
		By Cash in hand of Secretary	15 8 1
Rs.	47,094 8 1	Rs.	47,094 8 1

The actual premiums received during the period was Rs. 1,714-12-1.

Another company by the name of the Indian Life Assurance Company was founded with its Head Office at Meerut in the United Provinces about this time and seems to have had a brief career of about eight years. We have a reference to this company in the Directors' Report of the Bombay Mutual for the year 1876. It is stated: "One member who had applied for a policy of Rs. 10,000 has been re-assured in the Indian Life Assurance Company, Ltd., for a period of five years to the extent of Rs. 5,000." Premium for the above re-insurance amounted to Rs. 246-14-0. The company was absorbed by the Standard Life Assurance Company in 1878. The following is taken from the Centenary volume of the Standard Life[1]:

> "The only subsequent absorption happened in 1878, when the Standard took over the Indian Life Assurance Company, an office which had been founded in 1871, with its Head Office at Meerut. The business involved was comparatively small, 444 policies for a total sum assured of £172,265 and 29 annuities for £1,264 in all."

The next important Indian company to be floated was the Oriental Government Security Life Assurance Co., Ltd. It commenced business on 5th May 1874. This company also charged the same rates of premium to insure Indian lives as it charged for the assurance of European lives. It adopted several conditions in its original Articles of Association to safeguard the interest of policyholders, and the company as a whole. In its Jubilee pamphlet (1874—1924), it says:

> "Having regard as a first consideration to the interests of policyholders, certain definite and original rules were formulated to remedy the defects thought to exist in the methods of European companies already at work in the country. Thus in addition to providing policyholders with a controlling interest, provisions were made in the constitution of the company, strictly prohibiting amalgamations and furnishing the highest order of security for its engagements; giving a fixed monetary value for every premium paid, by investing 80 per cent. thereof in Government securities in trust for policyholders as their sole property to meet payment of claims; by shareholders and policyholders appointing their own trustees, auditors and consulting actuary to protect their respective interests; by funds being invested in Government securities only, and remaining in India, so as to afford absolute safety to both shareholders and policyholders."

[1] "The Standard Life Assurance Co., 1825-1925," by Sir William Schooling.

Only a few Indian and foreign companies were working in India at this time.[1]

Name of company	Year of inception or commencement of business in India	Head Office
1. Madras Equitable	1829	Madras
2. Madras Widows	1834	,,
3. Christian Mutual	1847	Punjab
4. Tinnevelly Diocesan	1849	Madras
5. Bengal Christian Family Pension Fund ..	1854	Bengal
6. Indian Life	1871	U. P.
7. Bombay Mutual	1871	Bombay
8. The Standard Life Assurance Co. (formerly the Colonial Life Assurance Co.)	1846	..
9. Universal Life Assurance Co., Ltd.	1840	..
10. The Liverpool and London and Globe Insurance Co., Ltd.	1853	..
11. North British	1864	..
12. The London Assurance	1864	..
13. The Royal Insurance Company	1860	(1871 Bombay office policy)
14. Commercial Union Assurance Co., Ltd. ..	1870	..
15. Pelican and British Empire and Mutual ..	..	..

In spite of the prejudice and ignorance of the people regarding life insurance, companies secured for themselves a very wide field for expansion, perhaps without parallel elsewhere. The Indian and English Press gave wholehearted support to the cause of insurance. This attracted the attention of several foreign companies which one after another extended their activities to this country.

The absence of mortality experience of Indian lives was a great handicap to the new-comers. They, however, met the difficulty by charging much higher rates of premium to safeguard themselves and by accepting proposals from Europeans only in the beginning. The records of several companies which had connections in this

[1] "In the year 1874 when the Oriental Life Office just started to do business, there were not more than half a dozen life insurance companies of any standing operating in this country."—"The Oriental Government Security Life Assurance Co., Ltd., Jubilee Book, 1874—1924."

country but wound up their activities after a period, are not available.[1]

The Commercial Union Assurance Co., Ltd., was established in 1861 in the United Kingdom and commenced general insurance business, including life insurance business, in India in 1870. It accepted life proposals from European residents in India. On enquiry at their Bombay Office we gather that the company was not keen on life business during its early career in this country. This was probably due to the absence of any reliable mortality table of Europeans in India and consequently no rates of premium satisfactory to the insured and the company could be arranged. The company ceased to transact life assurance business in view of the requirements of the Insurance Act of 1938. Even during its long stay, extending over a period of about 70 years, the life business was never considerable, and at the close of the financial year 1938 the total Indian business consisted of 516 policies assuring about Rs. 38 lakhs (inclusive of bonus) and guaranteeing annuity to the extent of about Rs. 11,000 annually.

The City of Glasgow which established its Branch Office in Calcutta in 1881 seems to be the next company to appear on the scene. This company was the first to charge the same rates of premium for both Indian and European residents in India from the very commencement. They appear to have underwritten a fairly large volume of business on Indian lives. The company was amalgamated with the Scottish Union and National in the year 1913.

The Equitable Life Assurance Society of New York extended its activities in India about the year 1882. It appears that it was the largest life assurance company in the world at that time, and still holds its position as one of the biggest and soundest life assurance companies of the world. It appointed the late Mr. Dasborough as an authorised agent of the society for India and the East. It also appears that within a few months a good number of substantial

[1] There were no requirements of registration or submission of reports and consequently no information is available whether a company actually worked in India or not, let alone the question of the actual details of its working. It was only after the passing of the 1912 Act that some information became available. I have attempted to obtain the information regarding the early career of companies directly from them, and have checked the information as far as possible.

proposals[1] were obtained. "He then left for Ceylon and Burma to organise branches there, but died within a few days of his arrival, of cholera. The Indian and Eastern branches had, therefore, to be finally closed within a few months, as three consecutive agents sent out to India by the company all died within a year, and as no one ventured to come out from the Head Office at New York, the business had necessarily to be closed and the Indian policyholders were transferred to a British fire insurance company in Bombay. All the claims of the local policyholders were accepted by them and the amounts forwarded on due dates." It is unfortunate that the Equitable had to close down so suddenly after successfully breaking the ground in India.

The New York Life Assurance Company, also an American company, followed the Equitable and commenced business in 1885 and continued to transact business up to 1922, when it withdrew from the country after transferring its Indian liabilities and assets to the Sun Life of Canada. The mortality rate of its Indian policyholders was investigated by Dr. Arthur Hunter and was published in 1926.[2] It has been referred to in the chapter on "Mortality."

The next company that came to India was floated with the clear object of writing business in this country. This was the Sun Life Assurance Company of India, Ltd., and was registered in England on the 20th of June 1891. It transacted business for about five years, after which its assets and liabilities were transferred to the Sun Life Assurance Society of London as from 31st December 1896. This latter company appears to be the parent company which promoted the first one. It continued to transact business in India up to January 1907.

The Sun Life Assurance Company of Canada was incorporated under the laws of the Dominion of Canada in 1865 and issued first policies in 1871. It commenced business in India in 1892 by opening an agency in Bombay. "The enterprise proved successful and following the rapid extension of business Bombay was chosen to be the company's chief centre in India." The late Sir Phiroz Sethna joined them in 1901 and took over charge from Mr. J. A. D. McBain, C.I.E., on his retirement from India in 1920. Sir Phiroz

[1] Letter from Dr. J. J. Cursetji, dated 18th August 1939.

[2] *Journal of the Institute of Actuaries*, Vol. LVII, 1926.

remained General Manager until 1933. The company owes its present popularity to his exceptional organising capacity.

In the very next year (1893) the Gresham Life Assurance Society of England commenced business in India. Messrs. Croft Mody and Company were their Chief Agents from the commencement of their business in India and continued to be so till 1937, when a branch of the company was opened here and took up the Indian business.

About this period either in 1892 or 1893 the London and Lancashire Life and General Assurance Association commenced business in India. After about 15 years in India they withdrew from this country in 1907. It is believed that their claim experience was unsatisfactory due to excessive mortality.

Several other foreign companies were undoubtedly functioning in India. But for want of records their names cannot be mentioned. A few of them are referred to later, but the dates on which they commenced business in India are not known. It is also unfortunate that details of business underwritten by them and their premium income cannot be obtained. We wrote to these companies but were unable to obtain from them even the year of commencement of business in this country.

The following extract,[1] taken from a letter written in 1890 by a Branch Secretary of an English insurance office which was contemplating starting life business in this country, throws some light on insurance conditions in India:

> "Life insurance in India is still in its infancy, and out of the population of Bombay (now at least 9,00,000) I do not suppose that more than quarter per cent., if so many, are actually assured. The Indian portion of these are of all classes and castes, and are employed as clerks, etc., in offices, solicitors, barristers, in Government employ, and a few as merchants. No statistics obtainable could give any guidance except in the most general way possible as to the prospects of life of any of these, but as a rule their expectation would be much better than the average of their respective castes. The mere fact of an Indian seeking life assurance would indicate that he was in a fairly comfortable position in life, likely to have imbibed more or less European ideas as to sanitation and cleanliness, the advantages of medical treatment and so forth."

[1] "47 Years Ago" from *Empindia,* November 1937.

From the above we see that the insuring class is a very small one selected from various communities, but as a rule confined to a few occupations or professions only, and conclusions arrived at regarding this class in Bombay would apply to members of the same professions in other parts of India. From the same source also we get light on the practice of other English companies at that time regarding the issue of policies on Indian lives. Usually these companies charged 10 per cent. over the European life rates for Indian lives. One company charged the assured Rs. 25 extra per Rs. 1,000 sum assured at the European life rates, and allowed this extra to remain as a debt on the policy at 5 per cent. interest until the assured had reached his expectation of life according to a table of their own. Another company commenced to accept Parsi lives (about the year 1890) at European life rates and accepted other Indian lives with an extra premium. It was the City of Glasgow, to which reference has already been made, that accepted Indian lives without any extra premiums over the tropical rates charged to European residents in India.

After considering the reliability of the sources of information, the value of statistics as far as obtainable, the difficulties of obtaining information and identification in case of a claim specially with regard to the question of fraud and the medical treatment available to those who are likely to insure, the Branch Secretary already referred to came to the following conclusions:

> "that we should accept Indian lives at European rates, but to enable us to do this a rigid system of selection will have to be adopted, and any inferiority however slight in the lives proposed should disqualify for acceptance at ordinary rates. The expectation of a life of a first-class Parsi, Hindu or Mohomedan is, I am convinced, quite as great as that of a European living in this country."

Coming to the historical development of Indian insurance companies since the establishment of the Bombay Mutual and the Oriental, we see that for the next period of about 20 years several companies were established in the Presidency of Bombay and that of Madras. One more thing to be noted in this respect is that all of them were mutual companies and were promoted mainly for the benefits of sectarian communities such as Christians or Zoroastrians. As will be evident from a reference to the reports of these companies, their working was on a very economical basis, largely due to the honorary services of office-bearers and, generally

speaking, the absence of agents. The following table shows the names of the companies, their Province and years of origin in chronological order.

Names of companies	Province of origin	Year of commencement
1. Bombay Widows' Pension Fund	Bombay	1876
2. Indian Ordnance	,,	1883 (subject to Act 1912 in 1926)
3. Indian Christian	Madras	1884
4. Goanese Mutual	Bombay	1885
5. Mangalore Roman Catholic	Madras	1888
6. B. B. & C. I. Zoroastrian	Bombay	1888
7. Parsi Zoroastrian	,,	1888
8. Bombay Zoroastrian	,,	1889
9. Guzerat Zoroastrian	,,	1891
10. Hindu Provident Fund (Hindu Mutual) ..	Bengal	1891 (first established in Simla)

Even at this time Indian life insurance was certainly in its infancy and Indians generally insured with foreign companies working in India.

As has been already pointed out, many foreign insurance companies were rapidly increasing their connections in India and at least three new foreign companies, which have been referred to, created new connections in quick succession during the early years of the last decade of the century. By this time the profitable nature of insurance business had been realised and amongst the several insurance companies promoted in this country during the last decade were three proprietary companies. The following Indian companies came into existence during this period:

Names of companies	Province of origin	Year of commencement
1. Indian Life	Bombay	1892
2. Punjab Mutual	Punjab	1893
3. Indian Empire Branch of Rechabites ..	U. P.	1893
4. Sind Hindu	Bombay	1894 (subject to Act 1916)
5. Bharat	Punjab	1896
6. Empire	Bombay	1897

The first proprietary company to be established during this period was the Indian Life Assurance Co., Ltd., of Karachi. The following quotation from a pamphlet, "A Retrospect," published in 1918 to celebrate the Silver Jubilee of the company, briefly tells the story of its beginning:—

> "The formation of the company was the outcome of a scheme for organising a Mutual Aid Association, a form of insurance which was very popular at the time. A careful examination of the subject, however, revealed the very unsatisfactory nature of the assessment principle on which such institutions are based, and the idea was therefore abandoned in favour of an insurance company on actuarial basis.
>
> "The chief difficulty experienced was the absence of suitable tables for Indian lives. It was finally decided to adopt the Northampton Mortality basis, but as the various tables required to calculate the premiums, etc., were not readily available, these had to be worked out, with an incredible amount of labour, which was cheerfully undertaken by Mr. L. C. Duarte with whom the idea of the formation of the company had originated and who so successfully developed it . . . ."

Mr. Duarte was appointed the first Secretary and held that office uninterruptedly for over 25 years. It was provided by the Articles of Association that 10 per cent. deduction of the gross premium income should be made to cover the expenses of the business. It is interesting to note that the first year's expenses (for a period of fifteen months) together with whatever preliminary expenses were incurred were less than the 10 per cent. deduction of the gross premium. It was not until 1907-08 that the working expenses exceeded 10 per cent. This was due to heavier expenditure in canvassing new business and in payment of doctors' fees. The excess was borne by the shareholders till 1917. In that year it was decided that in future the deduction shall be 35 per cent. of the first year's premium and 10 per cent. thereafter. This strictness in the management and procuration expenses has undoubtedly contributed a great deal to the stability and soundness of the company.

The other companies of this period which require special mention are the Bharat Insurance Co., Ltd., established in Lahore in 1896 and the Empire of India Life Assurance Co., Ltd., established in Bombay in 1897. The Bharat appears to be the first proprietary company to be established outside the Presidency of Bombay, and, certainly to-day, is the oldest proprietary company in India

outside the Province of Bombay and Sind and enjoying wide public patronage. These were the days when the entire domain of commerce and industry was under the thumb of foreigners. Life insurance business was mainly carried on by foreign companies which usually charged a high rate of premium to Indians in comparison with Europeans residing in this country. It was the foresight and the business acumen of the late Lala Harkishanlal who saw in this invidious distinction of premium rates an opportunity to arouse public opinion in favour of the formation and conduct of a life assurance company by Indians for their own benefit. In his attempt Lala Harkishanlal was greatly helped by the late Lala Gyan Chand. The late Lala Gyan Chand was born in 1867. He promoted the Punjab Mutual in 1893. He was appointed the first Manager and Actuary of the Bharat and held this office with distinction till his death in 1906. He was the first Indian to be taken as a member of the International Congress of Actuaries held in New York in 1903. The policy of the company with regard to investment of funds was bold. It freely patronised investments in shares and debentures of Indian companies, and as a result of its preference for public utility concerns, specially those generating and supplying electricity, several electrical plants were installed in the different cities of the Punjab. This resulted not only in the increasing daily use of electricity in the lighting of houses and streets but also supplied cheap motive power for running industrial plants. One special feature of the company was and is a reduction in premiums granted if the policy is absolutely assigned to charitable institutions. This feature is a noteworthy concession to Indian sentiments.[1]

We have already stated that the Empire of India Life Assurance Co., Ltd., was established in 1897. Its guiding spirits were Mr. E. F. Allum and Mr. R. E. Bharucha who bore the brunt of the work in establishing the company. Mr. Allum was at the head of the affairs of the company for over 40 years and is still on its Board of Directors. Mr. Bharucha died in 1920. The company's present sound financial position is due to the careful selection of lives and conservative methods adopted in the procuration of new business in preference to extravagant expenditure in attempting to underwrite large volumes of business.

[1] Page 32 of Bharat Insurance Company's Prospectus, issued on 1st April 1938.

All the factors that lead to the better appreciation of life insurance were generally present at the close of the century. Due to improved sanitation in cities and facilities for medical treatment, the longevity of the people was rapidly increasing. The secular trend of improved (lighter) mortality amongst the insured lives was also demonstrated by the results of the Mortality Investigations relating to these periods. The only setback that was met here was the severe epidemic of plague that prevailed during the years 1896-97. A certain amount of strain was put on the funds but all the Indian companies successfully met their claims as a result of judicious accumulation of sufficient funds in previous years.

We now enter the third stage of the historical development of life insurance which relates to the period 1900 to 1912. The opening of the twentieth century finds several foreign companies and a few Indian companies (the majority of which were less than ten years old) having to themselves the whole field of life insurance business in India. The setback during the closing years of the century, due to plague epidemic, was soon overcome, due to an increasing volume of new business as a result of appreciation of the benefits of insurance by the public. The few Indian companies were underwriting an increasing amount of new business, but in spite of this gratifying result it cannot be truthfully said that they were patronised as they should have been. The foreign companies, especially British companies, were well patronised due to their wide organisation in this country.

A few British companies commenced their activities during this period. The Scottish Amicable Life Assurance Society appointed Messrs. Balmer Lawrie & Co., Ltd., of Calcutta as their Agents and commenced writing business in December 1902.[1] This company, however, did not continue to transact business for long and ceased doing business in January 1909. As reports were not required by the Indian Government regarding business transacted in India, no further information is available regarding this company.

The second British company that commenced business is the Scottish Union and National Insurance Company. It commenced its business in 1905 and confined its issue of policies to the lives of

[1] Letter from Balmer Lawrie & Co., Calcutta, dated 21st August 1939.

Europeans in India. The City of Glasgow Life Assurance Company, to which reference has already been made, was amalgamated with the Scottish Union and National in 1913, and in 1914 the first policies on European and Indian lives were issued by the amalgamated company who charged the same rates of premium in each case.

The Liverpool Victoria Insurance Corporation which was incorporated in England about the year 1906 seems to have begun business in India from its inception. This company was absorbed by the Commercial Union in the year 1913. Several of the policies written by the Liverpool Victoria Insurance Corporation are still on the books of the Commercial Union.

Apart from the companies that have been referred to already, we find from a reliable reference that several other foreign companies were functioning in India.[1] A list of those companies that were working at this time and have not been referred to earlier, is given below.

1. English and Scottish Law Life.
2. Law Union and Crown (later Law Union and Rock)[2]
3. Northern Assurance Company.
4. Provident Life.
5. Phœnix Assurance Company.
6. Royal Exchange Assurance.
7. Star.
8. Scottish Metropolitan.

Undoubtedly several of these companies have very old connections with India, especially in fire and marine business, and it is quite possible that they transacted life business also for a considerably long period before this. It is, therefore, regrettable that even direct requests to these offices to give the probable years of commencement of business and their early careers in India met with refusals and evasive replies.

[1] Indian Insurance Manual, Thacker Spink & Co., Calcutta, 1907.

[2] "The business of the Crown Life was transferred to the Law Union in 1892. Similarly, the business of the Rock Life was transferred in 1909 when the company again changed its name to Law Union and Rock. This latter was absorbed by the London and Lancashire in 1919."—Bourne's Insurance Year Book, 1935. (It is not known whether the Crown Life and the Rock Life had separate existence in India.)

The following companies seem to have commenced business during the years 1907 to 1912, and it is probable that a few of them commenced business in India much earlier.

1. Alliance Assurance Company.
2. Atlas Assurance Company.
3. China Mutual.
4. London Assurance.
5. National Mutual of England.
6. Norwich Union Life Insurance Society.
7. National Mutual Life Association of Australasia.

The Norwich Union Life Insurance Society and the National Mutual Life Association of Australasia commenced business about the year 1908. The former also acts as the local representatives to look after and to settle claims of the London Scottish Life Office, formerly known as the London and Lancashire Life and General Assurance Association, to which a reference has already been made. Several of the foreign companies referred to ceased writing new business when the Insurance Act of 1912 came into force. We will come to them later on.

The intense *swadeshi* movement arising out of a realisation of the enormous grip which foreign interests have on the economic sphere of India in trade, commerce and industry gave a fillip to the development of Indian insurance companies. It not only enabled the existing Indian companies to get a larger share of the business available, but also resulted in the flotation of several new companies, some of which are to-day among the largest and soundest Indian companies. Of the several companies that were established during this period, mention may be made of the following names :

Names of companies	Year of commencement	Province of origin
1. United India Life Assurance Company.. ..	1906	Madras
2. National Indian Life Insurance Company ..	1906	Calcutta
3. National Insurance Company	1906	,,
4. Hindustan Co-operative Insurance Society ..	1907	,,
5. India Equitable Insurance Company	1908	,,
6. Co-operative Assurance Company	1906	Lahore
7. General Assurance Society	1908	Ajmer
8. Swadeshi Life (later changed to Bombay Life of Bombay)	1908	Bombay

The success of these companies and the strong *swadeshi* movement tempted the inevitable company promoters and as a result several other concerns were floated which were financially unsound. The failure of some of these unsound companies led to an agitation for the control of insurance companies, as a result of which the Insurance Act of 1912 and the Provident Insurance Act of 1912 were passed. The former was based on the 1909 English Act and the latter on the Friendly Societies Act of England. The important provisions of the first Act have been discussed in a separate chapter dealing with the Law of Life Insurance.

We are now entering the fourth stage of the historical development, namely, the period after the passing of the Insurance Act of 1912 and extending up to the year 1930. One of the results of the Insurance Act was that some English companies ceased to write further business with a view to avoid submission of reports to the Government of India. The names of such companies so far ascertainable and the dates of commencement of their business in India have been mentioned in the list of foreign companies provided in the Appendix.[1]

Several of the Indian companies which conducted schemes based on the principle of "Assessmentism" or on actuarially unsound basis, had either to drop them or modify them to conform to actuarial requirements.

Also the Indian companies who were paying dividends to their shareholders irrespective of whether the business was profitable or not, were stopped from declaring dividends except out of actuarially ascertained surplus. The result was that only a few companies could continue to pay dividends. The unsatisfactory nature of the business transacted by several Indian companies soon had its repercussions and before long they were found to have deficits as a result of actuarial valuations. Where the paid-up capital was not sufficient to cover the deficit the companies had to go into liquidation. Several such cases actually occurred.

All companies had to submit certain returns in a schedule form and they were published under the authority of the Government of India. The first of these " Statements of Accounts and

[1] See Appendix XIII.

Abstracts of Actuarial Reports " in respect of insurance companies was published in 1914.

The commencement of the Great War in 1914 overshadowed all other activities and a considerable amount of the good effects of the Insurance Act of 1912 was lost. The problem of investments became acute, due to the depreciation of Stock Exchange securities. The new business underwritten by companies also declined and in 1916 touched the lowest figure of Rs. 175 lakhs. Since then, however, the new life business written by Indian companies in each year has rapidly increased.

War risk which is ordinarily excluded from the scope of life policies and included on payment of a slight extra in times of peace came into great prominence. Members of the fighting forces who had not got themselves covered against war risk had to pay a large extra premium. The civilians who voluntarily joined the war services and were not already covered were liable to pay the additional premium determined at the time the cover was required. It was out of sheer patriotic motive that practically all English companies granted the war risk cover without charging extra premium to all their civilian policyholders who had insured prior to the commencement of the war and volunteered their services. Some of the Indian companies also followed suit.

The mortality experience, taking India as a belligerent country, was extremely favourable and no untoward increase was noticeable. This was due to the fact that the class of society from which the soldiers are usually recruited was not, and even now is not, insurance-minded and consequently the war mortality did not affect the rate of mortality expectation of Indian companies. The claims ratios of the Indian companies, however, were affected from another quarter. The unusually severe influenza epidemic which followed the war in 1918 is estimated to have claimed 60 lakhs of people. Also Indian companies along with the other companies all over the world suffered from the depreciation of their assets. The financial security of the companies was put to a severe test and it must be said that those companies that were conservative consistent with the business practice fulfilled their obligations satisfactorily. Bonuses were, however, considerably cut down.

In spite of the international turmoil a few foreign companies commenced business in India. The Royal London Auxiliary which was established in England in 1910 commenced business in India in 1915. It, however, had a short existence and with effect from June, 1922, merged into the Royal London Mutual Insurance Society.

The second company to commence business in the same year was the Yorkshire Life Insurance Company.

Two new companies commenced business in the very next year. One of them was the Great Eastern Life Assurance Company which was established in Singapore in 1908. The second was the Shanghai Life Insurance Co., Ltd.

The Shanghai Life Insurance Co., Ltd., was incorporated under extra-territorial laws in China with Head Office in Shanghai in 1905. The China Mutual Life Insurance Company, which has already been referred to, was also a British company incorporated in the year 1899 under extra-territorial laws in China with Head Office in Shanghai. It took over the management of the Shanghai Life Insurance Company about the year 1920. The amalgamated Indian business was transferred to the Sun Life Assurance Company of Canada with effect from 1st January 1923.

The post-war prosperity resulted in a rapid increase in the volume of new business written in this country. This attracted the attention of two foreign companies who extended their activities to this country. Their names are the Prudential Assurance Co., Ltd., and the China Underwriters Ltd. The Prudential commenced its business in India in 1924 and in a few years' time had been successful in creating large connections in India. Incidentally, it may be mentioned that it is the largest life insurance concern in the British Empire, and so far no other English company followed it to underwrite life insurance business in the Indian field. The other company, the China Underwriters, was incorporated in Hongkong in 1924, and commenced to write business in Burma, then a part of India, in the very same year, and has since written business both in Burma and other parts of India.

The Allianz und Stuttgarter Life Insurance Bank, a German insurance company, was established in 1889 (the largest insurance company in the continent of Europe), commenced business in

India in 1929 and was successful in securing a good amount of life business from the very commencement. It had, however, to cease business in India due to the outbreak of war, and we shall presently refer to the unprecedented situation that has arisen out of this, and the plight of the policyholders who had insured with the company. It may be mentioned here that this was the only German life insurance company working in India.

Closely following the advent of the above German company, the Crown Life Insurance Company of Canada entered the Indian market in 1930. This company was established in 1900 with its Head Office at Toronto and was doing good business outside India. The new life assurance business effected during the financial year ending in 1938 amounted to about Rs. 23 lakhs and an annuity business of about Rs. 25,000 per annum.[1]

In the year 1932 the Winterthur Swiss Life Assurance Company started business in India. This is the only insurance company of Swiss origin that has ventured in the Indian field for life insurance business.

The Confederation Life Association, another Canadian company (started in Canada in 1871), came to India in 1937 with the intention of starting business. It decided to await the outcome of the Insurance Bill which was before the House of Legislature at that time, and in view of the investment restrictions of the life funds and the compulsory compliance with certain other requirements, it finally decided to withdraw from India without commencing business. Thus the Winterthur Swiss Life Assurance Company becomes the last of the series of foreign companies which have extended their activities to India so far.

After the passing of the Insurance Act of 1912 and during the war period many Indian companies were floated, some of which went into liquidation in a few years' time. Among those that are still continuing, the following may be mentioned:

The Mysore Life Assurance Company was established in 1913. This name was subsequently changed to the Asiatic Government Security Life Assurance Co., Ltd., and the Head Office transferred from Mysore to Bangalore.

1 The Indian Insurance Year Book, 1939.

Three more companies were floated in the same year, viz., the Industrial and Prudential Assurance Co., Ltd., the Western India Life Insurance Co., Ltd., and the East and West Insurance Co., Ltd. The Western India had its Head Office at Satara and the other two in Bombay. The next important company that commenced business during the war period was the Zenith Life Assurance Co., Ltd., with its Head Office in Bombay.

The close of the war saw the flotation of several companies. Amongst them may be mentioned the New India Assurance Co., Ltd., and the Jupiter General Insurance Co., Ltd. Both these companies were floated with huge subscribed and paid-up capital to enable them to inspire confidence in the minds of the public to insure their fire, marine and other miscellaneous risks with them. This was a bold attempt, and has been very successful, especially in the case of the New India Assurance Co., Ltd., which was sponsored by the famous House of Tatas. The non-co-operation movement of 1920-21 created a strong nationalist feeling in the country and the continued patronage to these companies since their very inception made their financial position very secure and they were able to offer their services at competitive rates. The Life Departments of the New India and the Jupiter General were opened about 10 years after their incorporation and in the case of the former it has proved to be an eminently successful venture.

Among the other Indian companies that started life insurance business up to 1928, the Lakshmi Insurance Co., Ltd., stands foremost. It was founded in 1924 by the late Lala Lajpat Rai, with Head Office in Lahore. The Lakshmi is Punjab's second big successful venture in the life insurance business.

The period commencing from the year 1929 saw the establishment of a very large number of Indian companies each year. Several of these companies have already gone into liquidation, and their names and the dates of their going into liquidation will be found in the list of companies provided in Appendix X.

The attention of the insuring public in general and company promoters in particular was repeatedly drawn by the Government Actuary, pointing out the dangers of the indiscriminate flotation of

new Indian companies. The late Mr. Mukherjee, the then Government Actuary, in his report on the returns of life insurance companies, due for submission in 1933, says:—

> "It will be seen that with the exception of the few oldest companies which have been transacting business for over 25 years, a large number of companies of over 10 years' standing have not yet been able to pay any dividend to their shareholders. The advent of a large number of new companies has resulted in intensifying the struggle for existence and forcing up expenses to uneconomic levels. This, certainly, cannot be regarded as a healthy development. Most of the companies of under 20 years' standing have not yet secured a footing and the indiscriminate flotation of new life assurance companies will not be conducive to the best interests of the enterprise in India . . . ."[1]

A few of these new companies have certainly shown signs of vitality and are already well established in business. As already stated, several of the others have gone into liquidation, and the rest are passing through a period of crisis aggravated by the present unsettled conditions due to war.[2] Many companies have amalgamated and others are actually contemplating amalgamating their financial business amongst themselves with a view to strengthen their position. A list of Indian insurance companies, the transfer of whose business to other companies has been either completed or awaiting completion, is given below.[3]

Name of amalgamating company	With which company amalgamated
1. *Taj Insurance Co., Ltd., Lahore..	Star of India Insurance Co., Ltd., Lahore.
2. *Good Luck Insurance Co., Ltd., Lahore.	Free India General Insurance Co., Ltd., Cawnpore.
3. *Indo-Asiatic Insurance Co., Ltd., Ajmer.	Do. do.
4. Hindusthan Security, Allahabad ..	Do. do.

[1] Page 2 of the Indian Insurance Year Book, 1933.

[2] Since writing the above, the Government of India have recognised the gravity of the situation and have recently amended the Insurance Act relaxing the rules and reducing the periodical instalments of deposits required by the Act, for the duration of the war and one year afterwards. This concession applies to companies carrying life insurance business only. Safeguards are made to prevent companies taking advantage of the concession to incur increased expenditure or liabilities of an unjustifiable nature—*Times of India*, 15th February 1941.

[3] This list is taken from the *Indian Insurance Journal*, December 1939.

Name of amalgamating company	With which company amalgamated
5. *Modern India Life Assurance Co., Ltd., Calcutta.	Aryya Insurance Co., Ltd., Calcutta.
6. Searchlight Insurance Co., Ltd., Lahore.	Do. do.
7. *Premier General Assurance Co., Ltd., Patna.	Do. do.
8. *Jatiya Kalyan Insurance Society, Ltd., Calcutta.	Federal India Assurance Co., Ltd., Delhi.
9. Great Orient, Lahore	Do. do.
10. Providential Insurance, Aligarh ..	Do. do.
11. Unity Insurance, Lahore	Do. do.
12. Glory of India, Lahore	Do. do.
13. Great India, Calcutta	Do. do.
14. Hindustani Bima, Lahore	Do. do.
15. Central Life, Lahore	Do. do.
16. *Equity Insurance Co., Ltd., Lucknow.	All India United Assurance Co., Ltd., Lucknow.
17. Agarwal Insurance, Ajmer ..	Do. do.
18. Victory Insurance, Lahore.. ..	Sunshine Insurance, Lahore.
19. Frontier Insurance, Peshawar ..	Do. do.
20. Meenakshi Insurance, Madras ..	Do. do.
21. *Central Mutual Life Assurance Society, Ltd., Bombay.	Prabhat Insurance Co., Ltd., Bombay.
22. *Prabhat Insurance Co., Ltd., Bombay.	Forward Assurance Co., Ltd., Bombay.
23. *Modern Insurance Co., Ltd., Bombay.	Do. do.
24. *Aryan Life Assurance Society, Ltd., Bombay.	Champion General Insurance Co., Ltd., Bombay.
25. *All India Security Life and General Assurance Co., Ltd., Bombay.	Worldwide Assurance Co., Ltd., Bombay.
26. Great Peninsular, Madras	Bharati Bima, Benares.
27. Genuine, Calcutta	Aryasthan, Calcutta.
28. *United National Insurance Co., Ltd., Delhi.	Sterling Insurance Co., Ltd., Delhi.
29. *Hukumchand Life Assurance Co., Ltd., Calcutta.	Do. do.
30. *Ganesh Insurance Co., Ltd., Madras.	New Guardian of India Life Insurance Co., Ltd., Madras.
31. Hindusthan National, Lahore ..	Napier, Calcutta.
32. Universal Protector, Calcutta ..	Bihar National, Patna.

Name of amalgamating company	With which company amalgamated
33. United Assurance, Calcutta ..	Eastern National, Calcutta.
34. Bengal Mercantile, Calcutta ..	Do. do.
35. †All India Railway Men's Benevolent Fund, Nagpur.	Social Life Insurance Co., Nagpur.
36. Nag Insurance Co., Ltd., Nagpur.	Federal India, Delhi.
37. *Social Life Assurance Co., Ltd., Nagpur.	Associated Insurance Co., Ltd., Nagpur.
38. ‡Forward Assurance Co., Ltd., Bombay.	Federal India Assurance Co., Ltd., Delhi.

*The amalgamation of this company has been sanctioned by the court (*vide* Indian Insurance Year Book, 1939).

†*Indian Insurance Journal,* March 1940.

‡Amalgamation sanction sought in court (as per *Times of India* issue of 14th February 1941).

Before we close the historical development of insurance companies of India, we shall discuss a few of the problems relating to the life insurance business. For this purpose, it would be advisable to commence from the period beginning with the year 1912 because certain statistical information, though inadequate for other purposes, was nevertheless available from the annual Government Insurance Reports. Prior to 1912 it is believed that a large volume of dividing business was done by Indian companies—but no statistical data is available. On the passing of the 1912 Act several companies closed down. A few continued to function but the dividing and the annuity business done by them formed a negligible portion of the total insurance business done by the Indian companies. We have not included the particulars of the dividing and the annuity business in our discussion.

To begin with, we have to observe that the Indian life insurance companies were mainly affected by the 1914-18 war in the fall of new business, in the depreciation of securities and an increased rate of interest obtainable under new investments.[1] As we have mentioned earlier, the extra mortality due to war scarcely affected Indian companies because very few policies were issued to officers and men at the front. New business, however, declined and touched the

1 See chapter on "Interest Rate and Investment of Life Insurance Funds."

lowest figure in 1916 and thereafter began to show continued increase in the new business year after year, as will be evident by the following statement.

Number of Policies Issued and Business Effected by Indian Companies

Year	No. of new policies	New business effected	Total No. of policies	Total business in force (including bonuses)
		Rs.		Rs.
1914 ..	..	3,19,99,952	..	22,44,10,860
1915 ..	..	2,24,34,565	..	22,82,57,473
1916 ..	..	1,75,41,189	..	22,13,40,665
1917 ..	..	2,23,48,262	..	23,98,54,447
1918 ..	..	2,85,59,144	..	25,11,77,126
1919 ..	..	4,49,06,170	..	28,23,19,175
1920 ..	28,046	5,16,90,623	..	31,08,70,377
1921 ..	28,677	5,46,81,849	..	33,51,87,576
1922 ..	29,341	5,64,10,279	..	36,61,62,008
1923 ..	31,682	5,84,93,533	..	39,05,86,308
1924 ..	36,251	6,88,59,259	..	42,00,00,000
1925 ..	42,517	8,15,16,447	..	47,00,00,000
1926 ..	52,754	10,34,91,698	..	53,50,00,000
1927 ..	66,680	12,77,23,424	..	62,00,00,000
1928* ..	92,724	15,40,80,000	4,12,446	71,11,12,000
1929† ..	1,03,079	16,39,17,000	4,71,056	77,87,97,000
1930 ..	1,05,686	15,68,09,000	5,13,955	84,88,91,000
1931 ..	96,909	17,09,20,000	5,02,144	93,95,81,000
1932 ..	1,13,213	18,94,70,000	5,54,282	1,01,81,12,000
1933 ..	1,54,920	24,08,76,000	6,36,080	1,14,34,27,000
1934 ..	1,83,063	27,97,30,000	7,42,250	1,31,69,91,000
1935 ..	2,04,799	31,57,32,000	8,35,782	1,46,02,18,000
1936 ..	2,39,272	35,98,23,000	9,88,734	1,67,77,45,000
1937 ..	2,62,997	39,04,73,000	10,98,784	1,84,29,07,000
1938 ..	2,98,478	43,29,59,000	12,39,567	2,03,71,23,000

*From this year the Government Report shows the total number of new policies issued in India and outside India by Indian companies separately, but as the sum assured was not shown separately we have taken the aggregate new policies for this year.

†The figures for this year and onwards relate to business written within India only.

The classification of such new business written by the Indian companies during the years in which they were available are given in a separate statement.[1] From this statement we observe (1) that the business written under Endowment assurance forms a large proportion of the total new business written by the Indian companies and in no year was its share less than 72 per cent. and in some years it touched even 83 per cent., (2) the Whole Life and Limited Payment Whole Life policies constituted about 15 per cent. of the total new business written during the years 1914, 1915 and 1916 and thereafter the percentage varied between 13 per cent. and 15 per cent. approximately, (3) the percentage of Children's Endowment was about 2 per cent. in the beginning but later on formed a fraction of 1 per cent. only and in the year 1926 the business written under this head was merged under the head "other classes of business" written by Indian companies. Under this general classification the percentage in the earlier years was also insignificant but in certain years the figure shows sudden jumps from the previous years, e.g., the percentages of business in the years 1916, 1922 and 1924 were 1.47, 2.6 and 2.3 respectively, and the percentages for the years 1917, 1923 and 1925 were 4.3, 10.9 and 12.4 respectively. For the years 1926 and 1927 Children's Endowment has been merged under this heading and the percentage for these two years are 9.8 and 7.9 respectively. In the years 1923, 1925, 1926 and 1927 when the other classes of business show a higher percentage, we have to observe that the percentage of Endowment Assurances shows a sudden decrease of about 8 per cent. It is, therefore, likely that certain items of business which were formerly grouped under Endowment Assurance might have been included under "other classes of business."

The influenza epidemic of 1918 carried away over 60 lakhs people of India and this certainly affected the mortality experience of Indian companies. This will be clear from a comparison of the total claims paid during the years up to 1917 and during the period of the epidemic, namely, 1918-19.

[1] See next page.

Classification of New Business written by Indian Companies during each of the following years

Year	Whole Life		Limited Payment Whole Life		Endowment Assurance		Children's Endowment		Other Classes	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
	Rs.		Rs.		Rs.		Rs.		Rs.	
1914 ..	40,06,403	12.50	22,53,950	7.05	2,45,73,080	76.80	5,54,925	1.73	6,11,594	1.92
1915 ..	24,62,360	11.00	18,23,100	8.13	1,73,40,204	77.30	3,22,800	1.43	4,86,101	2.14
1916 ..	21,29,068	12.15	13,55,821	7.65	1,35,40,669	77.35	2,41,153	1.38	2,74,478	1.47
1917 ..	17,53,505	7.76	18,76,400	8.31	1,71,75,107	77.00	5,86,395	2.63	9,56,855	4.30
1918 ..	20,08,255	7.02	22,79,250	7.97	2,33,17,791	81.60	6,31,420	2.21	3,22,428	1.20
1919 ..	33,33,118	7.43	29,12,500	6.49	3,72,87,687	83.00	8,26,037	1.85	5,46,828	1.23
1920 ..	38,36,615	7.40	35,54,000	6.90	4,30,49,448	83.20	8,40,575	1.70	4,09,985	0.80
1921 ..	40,56,825	7.40	35,63,500	6.50	4,52,22,024	82.70	6,27,375	1.20	12,12,125	2.20
1922 ..	45,62,936	8.10	34,96,250	6.20	4,64,46,876	82.30	4,25,500	0.80	14,78,717	2.60
1923 ..	45,86,053	7.80	35,55,125	6.10	4,37,72,415	74.80	2,12,000	0.40	63,67,940	10.90
1924 ..	54,41,522	7.90	45,93,200	6.70	5,71,38,934	83.00	91,500	0.10	15,94,103	2.30
1925 ..	67,26,622	8.30	54,93,500	6.70	5,90,52,840	72.40	1,62,500	0.20	1,00,80,985	12.40
1926 ..	85,62,069	8.30	77,48,500	7.50	7,69,76,419	74.40	..	..	1,02,04,710	9.80
1927 ..	94,39,141	7.40	1,02,66,000	8.00	9,79,46,500	76.70	..	..	1,00,71,783	7.90

Claims Paid by Indian Companies by Death

(In thousands of rupees)

Year	Amount	Percentage on total income
1913	41,79	32.9
1914	36,87	27.4
1915	35,21	25.2
1916	35,99	26.3
1917	34,59*	24.0
1918	54,98	35.7
1919	51,25	30.3

*In the Government report for the year 1917, the figure is mentioned as about Rs. 34.5 lakhs, but in all the subsequent reports this figure is recorded as Rs. 5,459 thousands. It is really to be wondered how this mistake could be allowed to continue indefinitely without being rectified all these years. The percentage, however, is correctly stated in these reports.

Since the year 1919 the Government of India had been giving certain statistical information regarding the Post Office Insurance Fund, which together with certain other funds connected with the Government services[1] are exempted from the operation of the Life Insurance Act.

This Fund needs more than a passing reference owing to its special characteristics. It was instituted in 1883 for the benefit of the postal employees. Gradually admission to it has been thrown open to almost all classes of Government servants "who are employed on civil duties" and a considerable volume of new business is being written from year to year. The limit of assurance under the rules of the Fund was originally fixed at Rs. 4,000, but was raised to Rs. 10,000 about the year 1920, and it is understood that this limit has further been raised to Rs. 20,000.

The particulars relating to the total new business effected, number of new policies issued, the total sums assured and bonuses, and the total number of policies issued, at the end of each year as far as available are given in Statement A on page 40.

The following statement (Statement B) relating to the valuation surplus and the amount divided among the policyholders of the Fund is of a revealing character.

1 The names of these funds are stated separately from the list of Indian insurance companies (given in Appendix XI).

STATEMENT A—*Post Office Insurance Fund*

Year ending 31st March	No. of policies	Total new business effected during the year	Average policy amount of new business	No. of policies (total)	Total sums assured and bonuses	Average policy amount of total business
		Rs.	Rs.		Rs.	Rs.
1918 ..	..	..	..	27,810	3,81,65,952	1,372
1919 ..	..	27,76,170	..	..	4,26,92,633*	..
1920 ..	3,919	55,05,645	1,405	30,699	4,67,79,153	1,524
1921 ..	3,537	64,57,204	1,826	33,258	5,16,86,399	1,554
1922 ..	4,787	1,02,57,308	2,143	37,095	6,03,91,486	1,628
1923 ..	4,229	95,05,375	2,248	39,988	6,82,23,639	1,706
1924† ..	..	..	..	43,019	7,60,61,507	1,768
1925† ..	..	..	..	46,011	8,63,00,000	1,876
1926† ..	..	..	..	49,417	9,54,00,000	1,930
1927† ..	..	..	..	53,625	10,19,00,000	1,900
1928† ..	..	..	..	58,586	11,67,00,000	1,992
1929 ..	7 582	1,43,41,000	1,891	64,474	13,02,47,000	2,020
1930 ..	8,894	1,49,56,000	1,682	71,479	14,17,81,000	1,984
1931 ..	9,710	1,50,38,000	1,549	79,058	15,32,85,000	1,939
1932 ..	6,484	98,15,000	1,514	83,165	15,88,89,000	1,911
1933 ..	4,215	81,17,000	1,926	84,726	16,24,39,000	1,917
1934 ..	5,292	1,05,90,000	2,001	87,494	17,36,47,000	1,985
1935 ..	4,835	1,03,65,000	2,144	89,522	17,88 56,000	1,998
1936 ..	5,489	1,19,08,000	2,169	92,098	18,56,84,000	2,016
1937 ..	5,438	1,15,70,000	2,128	94,588	19,56,73,000	2,069
1938 ..	4,294	89,48,000	2,085	95,877	19,89,87,000	2,075
1939 ..	4,972	96,49,000	1,941	97,751	20,89,98,000	2,138

First separate statement for the year 1919 returns published in 1920.

*Elsewhere in the same report we find that the total sum assured and bonuses of the Post Office Insurance Fund remaining in force at the end of the year is Rs. 3,96,39,610.

†The number of policies and total new business for the years 1924 to 1928 inclusive are not available from the published reports.

STATEMENT B—*Post Office Insurance Fund*

Date of valuation	Surplus	Surplus divided to Policyholders	
		Amount	Percentage
	Rs.	Rs.	
1912	18,72,393	9,29,663	49.6
1917	20,74,753	10,72,856	51.7
1922	20,64,730	11,13,400	54.7
1927	40,43,394	21,00,000	51.9
1932	73,90,847	47,49,123	64.2
1937	63,51,302	49,52,004	78.0

Here it will be interesting to note that practically all Indian insurance companies distribute at least 90 per cent. of their divisible surplus among their policyholders, and in the case of "mutual" companies the whole of the divisible surplus belongs to the policyholders.

The rate of bonuses declared as a result of the valuation of the Postal Insurance Fund is also given below:

Year of valuation	Reversionary Bonus per cent. per year	
	Whole Life	Endowment
1912	2	1
1917	1.5	1
1922	1.2	0.8
1927	1.44	0.96
1932	1.2	1.2
1937	1.2	1.2

The rates of bonuses have been varying except for the last decade. This rate of bonus is moderate when compared to the prevailing rate of well-established Indian companies. But the premium rates of the Postal Funds are comparatively low, and taking that factor into consideration the returns finally obtained compare favourably with other well-established Indian companies.

The utility of such a fund is not denied, but by increasing the limit of acceptance on any one life, the Government of India is encroaching on the legitimate field of business of the Indian insurance companies. A more detailed investigation regarding the policy conditions under this Fund has not been possible and while the advantages of premium payment by a system of deduction from the salaries payable is not denied, it has to be pointed out that no loans are allowed on the surrender value of the policies. This is a real handicap, and needy policyholders will have to assign their policies to other banks or private individuals to raise the necessary funds. This naturally causes difficulties and the risk of payment of much higher rate of interest than the usual prevailing rate at which the Indian insurance companies grant loans to their policyholders.

During the years following the Great War, Indian companies began to write comparatively larger volumes of new business. In this attempt, however, they were faced with serious competition from the foreign companies. A strong public agitation was launched

against this and the Government of India agreed to amend the Insurance Act with a view to do away with certain defects in the Act and to impose certain restrictions, the absence of which was affecting the interests of the Indian companies adversely. In the year 1925 a Bill was introduced in the Legislative Assembly. It was subsequently withdrawn to await the outcome and to take advantage of the recommendations of the Clauson Committee set up in England at that time to report on the existing insurance laws in that country and to suggest improvements thereon.

In the meanwhile a stop-gap legislation was passed (Act XX of 1928) to enable the Government of India to collect data from all companies and to do away with certain glaring anomalies of the 1912 Insurance Act.[1]

As a result of the passing of this Act, figures of Indian insurance companies writing business in foreign countries became available as also the particulars relating to the business written by non-Indian companies in India.

The particulars relating to the new business and the total business of the Indian companies outside India and of the non-Indian companies in India are given in the attached statements.

STATEMENT "A"

Particulars of New Business and Total Business in force of Indian Companies at the end of each year outside India

Year	No. of new policies	New business effected	Total No. of policies	Total business in force (including bonuses)
		Rs.		Rs.
1929* ..	3,153	89,79,000	12,776	3,43,67,000
1930 ..	2,977	81,97,000	14,369	3,77,45,000
1931 ..	2,528	66,39,000	15,295	4,06,54,000
1932 ..	2,655	71,69,000	16,151	4,20,76,000
1933 ..	2,922	74,41,000	17,036	4,42,55,000
1934 ..	3,879	94,47,000	19,036	4,95,39,000
1935 ..	4,867	1,24,09,000	21,464	5,61,28,000
1936 ..	7,410	1,81,98,000	26,672	6,89,39,000
1937† ..	11,656	2,69,13,000	48,202	12,44,55,000
1938 ..	15,218	3,38,53,000	61,302	15,14,71,000

*No separate figures are available prior to 1929 as these were incorporated in the total figure of new business effected by Indian companies.

†The sudden increase in the figures is brought about by the separation of Burma from the Indian Empire, and consequently treating the business written in Burma as outside India.

[1] See chapter on "Insurance Law."

STATEMENT "B"

Particulars of New Business and Total Business in force of Non-Indian Companies during each of the following Financial Years within India

(In thousands of rupees)

Year	No. of new policies*	New business effected	Total No. of policies	Total business in force (including bonuses)
		Rs.		Rs.
1928 ..	30,337	9,55,50	1,51,925	52,59,51
1929 ..	39,598	12,22,14	1,83,640	64,08,14
1930 ..	39,523	11,75,82	2,02,703	69,76,48
1931 ..	28,229	9,59,48	2,11,769	74,19,38
1932 ..	25,920	8,75,04	2,31,003	79,22,15
1933 ..	28,463	8,89,80	2,19,767	76,69,76
1934 ..	31,555	10,14,01	2,44,483	83,23,54
1935 ..	33,997	11,62,20	2,59,159	88,77,57
1936 ..	34,133	10,74,65	2,72,238	93,07,74
1937 ..	31,049	9,65,53	2,72,310	92,60,43
1938 ..	25,952	8,41,95	2,76,143	94,31,02

*Includes Annuity policies also.

It will be obvious from the statements that the volume of new business written by the non-Indian companies fluctuated within narrow range in recent years and it is interesting to note that the total new business in the year 1928 was Rs. 9,55,50,000 and in 1937 Rs. 9,65,53,000.

The average policy amounts of the Indian companies for their new business in India and outside India, as well as that of the foreign companies in India, are given in the following statement.

Average Policy Amounts for New Business written for Indian Companies in India, Indian Companies Outside India, and Foreign Companies in India

Year	Indian companies in India	Indian companies outside India	Foreign companies in India
	Rs.	Rs.	Rs.
1920	1,843	....	....
1921	1,907	....	....
1922	1,923	....	....
1923	1,846	....	....
1924	1,899	....	....
1925	1,917	....	....
1926	1,962	....	....
1927	1,915	....	....
1928	1,696	....	3,150
1929	1,794	2,848	3,092
1930	1,974	2,753	2,975
1931	1,765	2,626	3,399
1932	1,674	2,700	3,376
1933	1,555	2,547	3,126
1934	1,528	2,435	3,213
1935	1,542	2,550	3,419
1936	1,504	2,456	3,148
1937	1,485	2,309	3,110
1938	1,451	2,225	3,244

The figures up to 1928 for Indian companies outside India and up to 1927 for foreign companies within India are not available.

From this statement, we see that the average policy amount of Indian companies outside India is higher than what it is in India. This is obviously because those people who have ventured out of their native land and remain in foreign countries are more appreciative of the benefits of insurance and also, being comparatively better off, have a larger insurance for their needs.

The average policy amount of the foreign companies, however, is much higher than that of the Indian companies, even appreciably higher than the average policy amount of the foreign business of Indian companies. This leads us to one conclusion, namely, that

the people who insure with the foreign companies are financially much better off. This is, of course, obvious, for a large section of the Europeans must be insuring with them. As, however, it is known that a considerable proportion of their business comes from Indians, it is evident that a large volume of desirable business is not placed with the Indian companies. In our country to-day there are several well-established and sound companies who compare very favourably with the foreign companies in the matter of security offered, and is it too much to expect that such insuring class should turn their patronage to these Indian companies in preference to outside companies?

The disadvantages of insuring with foreign companies are many, and instances are not wanting. Apart from giving away the control of a part of our national income into the hands of foreigners, the policyholders may lose heavily when such a company stops business or is prevented from carrying on business due to international complications. The example of the Allianz und Stuttgarter is to the point.

So far no united action had been taken by Indian companies to safeguard their interests. It was only in the year 1927 that the Indian Life Assurance Offices Association was formed. It is gratifying to know that this association has grown in strength and popularity from year to year and is doing a good deal of good work in several fields for the welfare of its members. The first annual Conference was held in Bombay in 1928 under the chairmanship of the late Sir Nowrojee Saklatwalla. The Association set to work immediately to point out the defects and to suggest remedies, and as an instance we quote the following two resolutions passed at the Conference regarding the payment of unduly high rates of commission and the granting of rebates:

> "This Association views with grave concern the growing tendency of life offices, as a result of the increasing competition in the life assurance field, to pay excessively high terms of initial remuneration to Agents so as to secure a very large volume of business irrespective of the quality or cost of procuration. This Association considers the time has now come for all the offices to take stock of their position and in the interests of efficiency and low ratio of expenses which are the *sine qua non* of successful carrying on of life business, seriously consider what steps they can take to cut down these unduly high terms of remuneration so as to effectively safeguard the interests of the policyholders.

"This Association views with very grave concern the practice known as 'Rebating' which is becoming increasingly prevalent in some parts of the country as highly prejudicial to the real interests of life assurance companies by tending to increase the ratio of expenses and to unsatisfactory business being written and to early and excessive lapsing of such business. The Association most strongly recommends to all life assurance companies to adopt propaganda among their Agents pointing out the inevitable results of such practice and also themselves to set an example to their Agents by refusing under any circumstances to allow commission in any shape or form except to properly appointed Agents of the company."

It is interesting to note here that apart from other improvements, the Insurance Act of 1938 does away with these defects. The Act has placed restriction on the amount of maximum commission that may be paid to agents and has made rebating illegal.

The Civil Disobedience movement of 1930 and the intense demand for *swadeshism* helped the Indian companies to tide over the periods of trade depression. A large number of new companies also sprang up and many of them have already gone into liquidation, as will be seen from the list of the companies given in the Appendix. This period made a record for the declaration of high bonuses to participating policyholders by well-established Indian companies, and this naturally resulted in the rapid increase of new business.[1]

Due to public agitation and pressure from commercial and insurance bodies (life and general) the Government of India decided to amend the Insurance laws. This we have dealt with separately and we may only note here that the new Insurance Act, except a few sections, came into force from the 1st of July 1939. The remaining provisions became effective only since 1st January 1940.

Several Indian States such as Kashmir, Baroda, Mysore and Travancore and others, as also the Province of Burma have either passed separate insurance legislation to control the business within their jurisdiction, or are contemplating such legislation. They are based more or less on the Insurance Act of 1938, and have similar rules regarding the deposits, etc. In some of these, the Indian companies incorporated in British India are treated as foreign companies and are required to comply with the provisions of the separate Act of the particular State.

The volume of business written by Indian companies in these States is understood to be only a small proportion compared to their total business written in British India, and the share of many

1 *Vide* page 36.

of the Indian companies individually is really insignificant. The result of such legislation and its requirements will be to drive the British Indian companies from the States. Attempts are, however, being made by several Insurance Associations to move the Government of India to request the State authorities to amend the Acts so that no restriction be placed either on Indian State companies operating in British India or *vice versa*.[1] The compliance of the statutory requirements in any State or British India should entitle the companies to work freely in other jurisdictions without the enforcement of any further statutory requirements.[2]

It is interesting to observe the circumstances under which the 1938 Act was introduced which have more than one similarity with the introduction of the 1912 Act. Both came in at a time after the period of about six years during which a number of companies had sprung up due to the prevalent *swadeshi* spirit and several of which had also gone into liquidation. Again, in both instances wars have broken out and problems similar to those experienced during the Great War are again appearing on the scene.[3]

1 The Government of India has already taken steps in this connection and amended the Insurance Act in April 1940, wherein it has extended the scope of "approved securities" to include State securities also, designed to assist British Indian companies to secure reciprocal concessions under section 116 of the Indian Insurance Act, 1938.

2 Reciprocal arrangements could not be completed due to the constant revision of the Indian Insurance Act. Now that no more amendments are proposed to be brought forward for some time to come, it is advisable that no time be lost in coming to some workable arrangement for the mutual benefit of the British and Indian State companies.

3 An extra premium to cover war risk has now assumed great importance. It is understood that the Indian companies have tentatively agreed to cover war risk under the existing policies at the following extra premiums:

1. Combatants—Rs. 50 per thousand,
2. Non-combatants—Rs. 25 per thousand,
3. Personnel of the Air Force—Rs. 80 per thousand.

Naval officers and merchantmen sailing under the White Ensign are to be treated as combatants. Proposals on the lives of combatants or those who are likely to become combatants are to be declined. In the case of other new policyholders who desire war risk cover, an extra premium of Rs. 50 per thousand is to be charged. The above extra is to be charged from the date when the person proceeds to a country or area of warlike operations or is in a line to proceed thereto. Ordinary sailors and others in ordinary merchant vessels are to be continued to be insured without any extra premium for the war risk.

From the above it is to be inferred that civilians are covered against the risk of death due to warlike operations. In this connection, a Canadian company has issued a pamphlet to its policyholders pointing out that the existing policies cover war risk without any extra premium and, therefore, they should on no account be allowed to lapse or be surrendered; for war risk is ordinarily excluded in all policies and is covered only on payment of a heavy extra premium.

With the introduction of the new Act several Indian companies have taken the opportunity of revising their prospectuses and policy forms to bring them into conformity with the provisions of the Act, and have also incorporated the latest developments in the insurance line. The premium rates have in several instances been revised to give effect to the mortality rates prevailing and also take into account the low prevailing rate of interest. The Indian companies are, therefore, in a better position this time to meet the piquant situations created by the war.[1] In view of all these considerations, their future appears to warrant an optimistic view.

1 In this connection we have to point out that the National Planning Committee set up by the Indian National Congress appointed a sub-committee composed of eminent insurance men under the chairmanship of Sir Chunilal V. Mehta to suggest ways and means for consolidation and improvement of Indian insurance business. We hope that the Committee will also go into the problems arising out of the present war and will no doubt suggest suitable measures to safeguard the interests of Indian life insurance companies.

CHAPTER III

Life Insurance and its Manifold Relations

LIFE has always been an uncertain thing. To be secure against the unpleasant possibilities the future may have in store, has always required the utmost resourcefulness, energy and foresight on the part of man. But in the past it was practically impossible to provide against many of the eventualities that might happen. Risks to life and limb as well as to property were very great. The mere accumulation of wealth and the adoption of devices to ensure its protection were not sufficient. State administration, of course, provided a certain degree of safety and the taxes which citizens pay for this purpose can be regarded as its purchase price. This, however, is not the same thing as insurance, for while the administration provides a measure of protection against some hazards of life, it does not usually indemnify people against any loss or damage that they may suffer from these. Insurance provides compensation in the event of loss or damage, and a premium is charged as the price thereof.

It has been possible for the insurance companies to charge fixed premiums because experience has shown that the risks in a particular field—life, fire, marine, motor, accident, etc.—are practically constant over a large number of years and the cost of insurance protection which can be easily determined from statistics of occurrences remains more or less constant from year to year, though slight modifications may now and then be necessary. No one need, then, be his own insurer to-day and take risks which no wise man should expose himself to, however affluent his circumstances may be. The work should be relegated to insurance companies which can perform it more efficiently.

The aim of insurance is, thus, social, that is, to remove or reduce the hardships which might befall us through accidents and vicissitudes of life. It is, therefore, the duty of all persons, whether connected with the business of insurance or not, to bring its importance to the notice of the public and to work for its universal adoption.

Coming to the business of life insurance, we see that it is an agreement between an individual and a company, or between the members of a group, by which a company or group agrees to pay a certain sum to the beneficiary of the insured or the insured himself

upon his death or his survival of a number of years. The insured, on the other hand, binds himself to pay certain sums at stated intervals as premiums, and agrees further to comply with the other conditions of the policy. The sum to be paid bears no relation to the economic value of the life insured.

Unlike other business concerns an insurance company builds up its assets largely, if not wholly, out of moneys paid by policy-holders, who receive in exchange pieces of paper embodying the contracts between them and the company. In a fundamental sense, therefore, the officials and the agents are the employees of the policy-holders. This is true in all cases of mutual or stock companies. The companies render service to the policyholders by granting indemnity in return for periodical payments of premium. The premiums are voluntary contributions of the many to help bear the misfortunes of the few. Insurance, therefore, is essentially mutual in character. Self-interest brings individuals together and the group as a whole is able to provide compensation for the misfortunes of its members unknown at the time the agreement is made. In stock companies a third party is introduced in addition to its policyholders only for the purpose of convenience. The detailed and necessary work of running the company is assigned to an employee who becomes a middleman. This middleman simply collects the premiums and guarantees payment of the losses, thus relieving the members of the group of any risk of loss from a wrong assessment of premium. Hence we see that no amounts of surplus and assets would make possible continuation of business or even the payment of indemnity if there were not this group of insured mutually bound together by the desire to protect each other against future misfortune.

Relation of the State to Insurance. We have seen that the business of insurance must concern itself with a large number of individuals. It demands the association of individuals in order to secure a thing which no one could secure for himself. It is a co-operation amongst many who are bound together by a general interest; but it can be easily exploited by an individual or a group of individuals at the expense of the many. The business demands an agreement between sellers and the buyers of a valuable thing—an indemnity—in which the terms of the sale are often misunder-stood. Life insurance contracts continue for long periods of

time, often extending beyond the life of the party and the settlement for which they provide cannot be enforced in most cases by the original party to the contract but must rest either upon the good faith of the other party or upon the compulsion of a third party —the State.

Since the obligations of an insurance company are chiefly in the future, errors due to ignorance or dishonesty do not immediately disclose themselves and in no case can a policyholder withdraw without serious loss. On account of the difficulty of comprehending the principles underlying the business of insurance and also because of the complexity of actual transactions, an average policyholder cannot determine for himself the soundness of a company at the time he is thinking of entering into a contract with it. If he discovers some flaws in the working of the company he has neither the knowledge nor the power to remove them and protect his interests. On the other hand, the business is conducted almost wholly with the funds contributed by him and the other policyholders. There would, therefore, seem to be good reason for intervention by the State in order that the principles of justness and equity may be preserved. The State should not only protect the weak against the unjust actions of the strong, but it should also prevent a large number of its citizens from doing an injury to themselves. In this last mentioned capacity it should prohibit a group of individuals from organising themselves into an "assessment" company.[1]

Social Aspects of Insurance. A family which depends upon the income of a person has a permanent interest in his life. With his death or incapacity it will suffer privation or have to depend upon charity, both unenviable prospects to which their natural protector should not expose them. By the payment of comparatively small sums at convenient intervals for an insurance an individual can provide for his dependents against his premature death; he can similarly provide for his own old age and incapacity. It is here that the institution of life insurance performs a valuable service. "There are certain things which the society must do in justice to itself which it cannot safely allow individuals to demand in justice to themselves. If you give every man a right to a pension when he is incapable of self-support, you tacitly approve of his failure to

[1] For explanation of "assessment" company, please see chapter on "Principle of Life Insurance."

provide for himself and his children. That the necessary degree of production and of economy by the community as a whole would be maintained, if such a point of view were adopted, seems highly improbable. We need measures which shall increase individual responsibility rather than diminish it; measures which shall give us more self-reliance and less reliance on society as a whole. We cannot afford to countenance a system of morals or law which justifies the individual in looking to the community rather than to himself for support in age or infirmity."[1]

It will not be denied that certain persons must and should be supported at the public expense, but the fewer there are of these the better would be the finance and the morals of the community, and life insurance is continually reducing this dependent class. It is not the man who lives to old age, supports and educates his children and saves a competency, who contributes to the class who are applicants for public charity; but the one who is taken away while his children are infants and who has not had the time given him, no matter how affectionate and thrifty he may be, to provide for their means, is a liberal contributor to the asylum and the alms-house. He may avoid this danger by postponing marriage for such time as will enable him to accumulate a sufficient sum to ensure the comforts of a family, but neither morality nor public welfare will be best served by the establishment of such a principle. There is but one way by which he can follow the course which nature intended him to take, and that way is open to him through life insurance.

We have seen before that insurance is a mutual agreement among the many members of a society who assume the burden of sudden loss which may befall a few in a year. Looked at from another angle we see that it is a method of capitalising income against a future contingency. Insurance is thus based upon the fact that a single life in society has actual or potential value which should as far as possible be safeguarded in the interest of those who may directly or indirectly benefit from its continuance.

Now we will discuss insurance from the viewpoint of the family. The family is the crucial social unit, the very keystone of society. If this view of the family be accepted then apparently life insurance is an important factor which contributes to the stability

[1] "Yale Readings in Insurance"—Edited by L. W. Zartman, page 21.

and continuance of the family as we know it. Life insurance tends to increase the sense of responsibility of the individual, and offers a scope for the exercise of those qualities of foresight and solicitude for one's family which distinguish a civilised man. The man who enters upon married life without considering not only the probabilities, but also the possibilities will find himself handicapped with responsibilities which he cannot transfer to others and which will be a source of anxiety in the future. Life insurance is one of the agencies which improves the mental, moral or material circumstances of citizens, raises the condition of the community of which they are members and thus benefits the State.

Life insurance lessens family discords and checks intemperance by removing the main cause of anxiety, for the insured is sure that in case of his death the life insurance company will immediately make available to his people what he would have saved in future. This is the most common and pre-eminent characteristic of life insurance. The normal development of the family of the deceased husband is permitted since provision has been made for the education of the children and the maintenance of the wife. Thus life insurance promotes the welfare of society by properly caring for the social unit—the family.

Insurance and Individual. Life insurance is not to be regarded as primarily beneficial to others in a financial way upon the death of the premium-payer. A life insurance policy always benefits two sets of persons, first the beneficiary named in the policy and, secondly, the premium-payer himself. Therefore, emphasis should be laid on the "life side" of the premium-payer as regards life insurance quite as much as the "death side". Every person with a normal ambition desires, in the limited number of working years that are given to him, to accumulate an estate of decent proportion as viewed in the light of his scale of affairs, in the fulfilment of which desire life insurance pre-eminently serves the premium-payer creatively in six main ways, viz.,

(1) by promoting his initiative,
(2) by systematising and fostering his thrift,
(3) by increasing and maintaining his credit,
(4) by conserving and improving his savings through sound and profitable investment,
(5) by protecting the estate already created in other ways, and
(6) by prolonging the working life itself.

Worry and fear retard human initiative and efficiency probably more than any other factor. Personal attainment and vocational efficiency are impossible when a person is living under the shadow of fear and anxiety. Life insurance mitigates these evils and reduces the uncertainty which attaches to our economic affairs due to the risk of premature death. Through its protective influence the family and the business are transferred from a highly speculative, if not a gambling, plane to a condition of relative financial stability.

Life insurance constitutes a complete service within itself and judiciously combines saving on a convenient instalment plan with permanent protection of the potential estate. It enforces thrift, for the insurance contract requires the assured to pay definite sums at stated intervals. Through lack of foresight or will-power few men save except under pressure. There is a constant temptation to over-value the present as against the future, not because the latter is uncertain in the minds of most men in their productive years but because the imminent pleasures of the present loom large while the pleasures of the future dwindle proportionately to their remoteness. Life insurance policies afford an opportunity to make saving convenient and systematic so that at the end of his working life an ordinary man may pile up a substantial total. Moreover, it takes time to save an estate; the saving period should therefore always be protected against the premature removal by death of the person who does the saving. In this analysis we see that life insurance is time insurance. Time is a precious economic possession and should be insured against loss just as legitimately as any other economic value.

Life insurance is a powerful agency which creates and maintains the credit of the person insured. It enables persons with character and ability to obtain loans upon their life value against loss through death just as property when covered by fire, marine and other forms of insurance can be freely used as pledge for loans. Life insurance furnishes tangible evidence and makes it available as security in much the same sense that corporation stocks and bonds are now pledged as collateral for loans. From this point of view life insurance is eminently suited not only to increase greatly the volume of credit but to secure the debtor a better rate of interest.

From an investment point of view life insurance yields fair return on the premium paid to an insurance company. The life

insurance premium is composed of two main parts, one which goes to meet the claims as and when they arise and the other which is accumulated and becomes available to pay the later claims when the current premiums become inadequate to meet them. If we confine our attention to the reserve or investment portion of the premium the return on it compares favourably with that obtainable from other gilt-edged non-speculative securities. It avoids for the policyholder all dangers of individual selection in investment and it spreads its risk widely. Apart from having to pay his premium regularly, the policyholder is relieved of all managerial care; the investment which he makes through his policy is non-fluctuating in value and is secured by him through small periodical instalment payments.

The primary object of insurance is prevention of loss. All types of insurance devote themselves to the preventing of loss of service from assets, human and material. Life insurance to-day is beginning to do in the field of life conservation what the various forms of property insurance are doing in the field of property conservation. Adding to the length of life is of tremendous advantage to the insured, the beneficiary, the society and to the company generally. Values are values whether they be life values or property values. We should take a periodic account of ourselves in the same manner in which we provide for periodical stock-taking of our property and try to maintain its value. If the average working life of human beings can be extended by a few years, say 4 or 5, the benefits reaped will fully justify the cost involved.

The attached statements have been taken from the Statistical Year Book of the League of Nations 1937-38. If we compare the expectation of life of a child born in America, Australia or any country of Europe with that of an Indian child, we observe that whereas in the case of the former the expectation of life is at least 53.76 years, in the case of the latter it is only 26.91. Even in Japan, which is an oriental country, such expectation is 44.82. The figure of the expectation of life of a new-born child is greatly influenced by child mortality during the first year after the child is born, and this is true of all countries, but nowhere is the percentage as high as in India. Similar comparison at other ages also reveal that the expectation of life of the Indian is very much less in comparison with those in other countries.

Expectation of Life—Males

(From the Statistical Year Book of the League of Nations, 1937-38)

Age	India 1931	Japan 1926–30	Germany 1932–34	Denmark 1931–35	France 1928–33	Italy 1930–32	U. K. 1936	Sweden 1926–30	Switzer-land 1929–32	Austra-lia 1932–34	U.S.A. 1935
0	26.91	44.82	59.86	62.0	54.30	53.76	60.13	61.19	59.25	63.48	60.72
1	34.68	51.07	64.43	66.5	58.63	59.71	63.38	64.41	61.75	65.49	63.15
10	36.38	47.93	57.28	59.0	52.06	55.46	56.45	57.32	54.35	58.02	55.65
20	29.57	40.18	48.16	49.8	43.30	46.75	47.31	48.56	45.36	48.81	46.57
30	23.60	33.43	39.47	41.0	35.42	38.58	38.54	40.50	36.97	39.90	37.87
40	18.60	25.74	30.83	32.1	27.62	30.39	29.78	32.16	28.58	31.11	29.43
50	14.31	18.49	22.54	23.6	20.33	22.45	21.55	24.04	20.67	22.83	21.61
60	10.25	12.23	15.11	16.0	13.76	15.16	14.46	16.50	13.91	15.57	14.73
70	6.35	7.43	9.05	9.7	8.29	9.05	8.61	10.11	8.42	9.60	9.21

Number of Survivors out of 100,000 *Born Alive—Males*

Age	Australia 1901-10	Denmark 1906-10	England 1901-10	France 1898-1903	Germany 1901-10	India 1901-10	Italy 1901-10	Japan 1898-1903	Sweden 1901-10	U.S.A. 1901-10
0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
10	86,622	84,240	78,083	75,944	72,827	50,212	71,325	74,891	84,762	80,605
20	84,493	82,205	76,113	72,948	70,647	43,833	68,579	71,310	81,638	77,957
30	80,844	78,862	72,741	67,653	67,092	35,831	64,108	65,596	76,619	73,222
40	75,887	74,773	67,668	61,641	62,598	27,136	59,669	60,101	71,897	66,996
50	68,221	68,284	59,903	53,818	55,340	18,658	53,799	52,629	65,702	58,963
60	56,782	57,639	47,564	43,199	43,807	11,229	44,902	41,160	56,548	47,701
70	38,275	40,684	29,898	27,465	27,136	5,134	29,835	24,519	41,680	31,050
80	14,330	17,333	10,608	8,774	8,987	1,032	10,079	7,964	19,350	12,295
90	1,652	1,968	1,117	728	683	11	580	631	2,380	1,492
100	15	..	13	11	4	..	..	1	20	25

(For further details, please refer to page 169 of the Census Report, 1931, Vol. I, Part I.)

What India loses due to her heavy mortality at different ages will be evident from the statement[1] showing the survivors out of 100,000 born alive. At the age of 20 there are 43,833 survivors in India in comparison with 68,579 in Italy which has the second lowest number of survivors. Due to the higher rate of mortality at subsequent ages, the number of survivors in India show proportionately higher decrease than the other countries. At the age of 60 only 11,229 survivors are left in India whereas the next lowest figure is 41,160 in Japan. The magnitude of economic loss, apart from other considerations, to India from the loss of man-power during the productive years of life in comparison with the other countries is revealing indeed.

Lastly, life insurance indirectly creates wealth by enforcing thrift and saving and inculcating regular habits of living. It directly affects the distribution of wealth in that it is a fund collected from contributions of many and distributed without any necessary relation between the amount paid in and the amount paid out so far as any one individual is concerned.[2]

Finally, we must note that life insurance exists for the purpose of repairing the loss occasioned by the death of an individual who earns a surplus over the cost of maintaining himself.

Summarising the above, we find that life insurance is a process of mutual co-operation amongst the policyholders for their common good. By this association they eliminate the financial ill-effects of uncertain duration of life. They make possible a safe and profitable investment of the premium paid by the policyholders who provide for themselves and for those who come after them against the rainy day. They help to promote economic welfare of a community by providing capital for the development of its commerce and industry.

[1] The statement relates to a period prior to 1910. Nevertheless, it enables us to form a general idea of the mortality obtained in different countries.

[2] That is to say, the principal sum may be paid after only one year's premium has been paid, the members of the insured group having by the very fact of their becoming members of the society mutually agreed to bear each other's burden.

CHAPTER IV

Principle of Life Insurance

LIFE insurance at the present time is a complex affair. The basis of this system is that insurance offices guarantee payment of fixed sums of money (excluding bonus additions) either on the death of the assured or on his attaining a certain age, in return for the payment of appropriate published rates of premium. Conditions pertaining to the contract are printed and endorsed on the back of the policy, which is the evidence of the contract.

We are all familiar with the uncertainty of death—not the occurrence of it, but the time of its happening. This uncertainty has serious consequences to those who are left behind. What life insurance does to mitigate these evils has been dealt with elsewhere. Here we are dealing with the principle on which life insurance is based.

The most vital requisite of life insurance is the ability to predict the chances of mortality with the help of what are known as Mortality Tables. Expectation that such prediction will be true is based upon the assumption that the future will, under similar circumstances, repeat the past in its essentials.

Most of these events which are called chance happenings, i.e., the products of unknown causes, become predictable after we have observed a great number of such events over a long period. We come to perceive aggregate regularity amidst individual irregularities.

James Bernouillie's "Theorem of Large Numbers" may be enunciated in two propositions. Briefly stated, they are as follows:

(A) That the probability of events happening in numbers proportionate to their respective chances in a single trial is greater, the greater the number of trials and observations.

(B) That the number of observations or experiments may be so determined that the probability of events happening in numbers within any specified limits of deviation from the proportion just mentioned, however narrowly those limits may be fixed, approach to certainty as closely as is

wished. Concisely "in the long run events will tend to occur with a relative frequency proportionate to their objective probabilities."

We know that in all ordinary affairs of life, whether private, social or commercial, every man bases his expectations upon experience. He employs the relations observed between past occurrences as the foundation of his judgment respecting future events of a similar nature and happening under congruent conditions. The doctrine of probabilities, as stated before, simply sets up this inherent tendency into a general and organised scheme of numerical expression. Laplace justly stated that the theory of probabilities consisted simply of good sense reduced to a system of calculation.

Thus we see that there is a tendency for a definite uniformity to be observed in a large number of circumstances in regard to happening or not happening of certain pre-determined conditions in each instance. This uniformity, however, has certain conditions.

(A) There must be sufficient number of instances to disclose it.

(B) All the observations must be confined to definite periods.

The above principle is applied in the construction of mortality tables by observing the mortality of a large number of lives within a definite period of, say, 10 or 20 years. We know that, due to advances and improvements in living and working conditions, the average duration of life is increasing. This fact is not properly allowed for, but the changing rates of mortality should be noted and in any case since the increase in the duration of life is a phenomenon favourable to the insurance companies, it does not lose anything by not allowing for it sufficiently.[1]

It is, indeed, true that just as there are "runs of luck" as when in tossing a coin "heads" may come up continuously for several times in succession, so too in life insurance there may be an unusual number of deaths within a short period or the number of deaths may be far below what is normally expected and calculated. But

[1] The companies, however, do not benefit by this increase in duration in case of annuity business. This factor of increasing longevity is taken into consideration at the time of the calculation of premiums for annuity.

the abnormal experiences will so balance one another in the long run that the total result will be in harmony with the uniformity previously observed. The practical effect of this in life insurance is that the amount paid to the representatives of those who die early are made good out of the contributions of those who live long.

The factors which influence a particular individual's length of life are too numerous. All we need to know, in applying the theory of probability to the duration of life, is that certain major forces such as climatic conditions or diseases operate upon large groups of individuals of a given age for considerable periods of life with the same or increasing degree of intensity. Minor factors such as the individual's occupation may operate in either direction and their net result for a group as a whole is insignificant. Insurance companies endeavour to secure a homogeneous group excluding diseased persons or people below a certain standard of physical fitness. Since an absolutely homogeneous group cannot be obtained by a public company, attempts are made to modify the terms of the contract or to charge extra premiums, etc., to particular individuals, so that for a group as a whole the benefits are equitably distributed. Thus in the language of Mr. Gephart[1], "Life insurance is a mutual contract among those who so dread the consequences of the uncertainty of life that they will employ the aggregate regularity to neutralise the individual irregularity."

On a reference to a table of mortality we will observe that the rate of mortality increases with the age. In other words, the chances of a person surviving at the end of a year diminishes very considerably as he gets older. Neglecting interest and loading, to which reference will be made later, the rate of mortality becomes the premium for a temporary assurance of Re. 1 for one year. This annual premium for the age-to-age risk is called the "natural premium". If each of the 39,461 persons living at the commencement of age 35 appearing in the Life Table[2] were to pay at the commencement of the year a premium of Rs. 24-1-6, the total fund of Rs. 9,50,763 thus built up would provide Rs. 1,000 to the representatives of each 950 persons, who, according to the table, will die during the year. At age 45 the rate of mortality has increased to

1 "Insurance Principles," by Gephart, Vol. I.

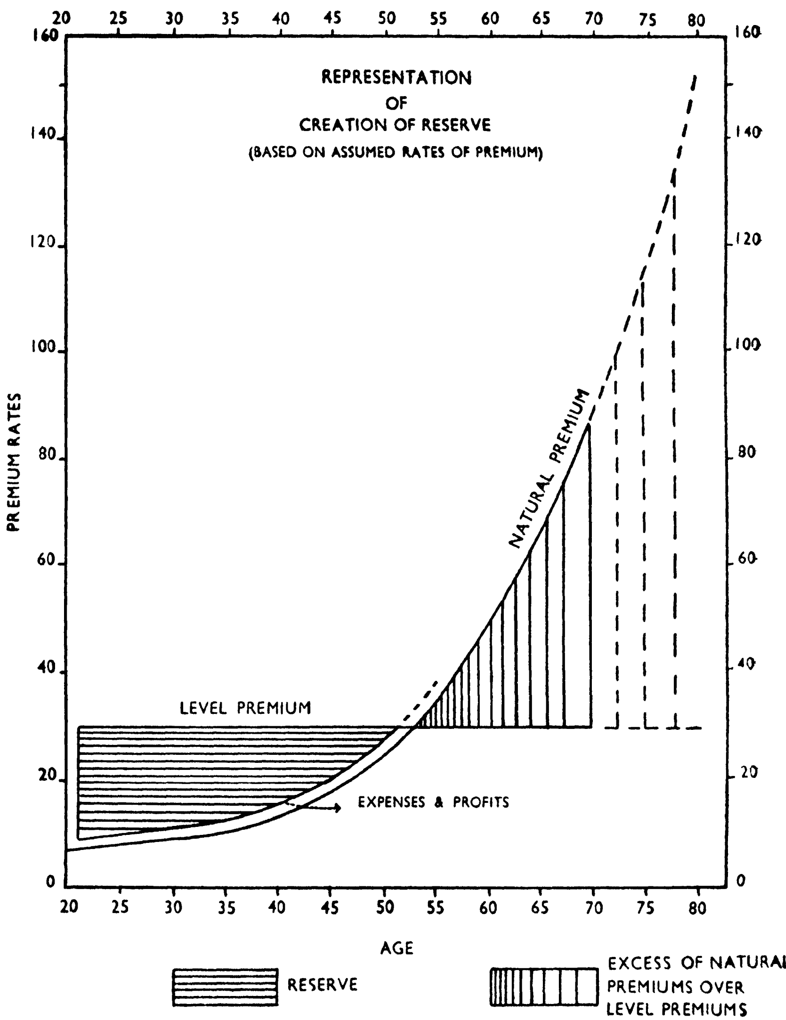
2 Life Table of Males as determined by Indian Census 1931 given in the Appendix.

3.49 which would mean a premium of Rs. 34-14-3 per thousand for one year term insurance.

We have seen that a person may continue to effect a temporary insurance each year by paying increasing rates of premium for each year, but a reference to the rate of mortality at any higher age would convince that the annual premium for the current risk would be excessive at a period of life when practical retirement from active labour and the natural desire for reduction of expenditure render the increasing premium inconvenient. The above feature has been adopted by certain offices in granting insurance under a system of "assessmentism". But the experience of all offices working under the above plan is that though at the commencement deaths are infrequent and consequently annual levies (or mortuary calls as they are known) are small and therefore new members easily obtained, after a lapse of a few years the mortality tends to show a steady increase which makes it necessary to increase annual levies heavily. This not only deters intending proponents from joining the company but induces existing members who are in good health to allow their policies to lapse and to seek assurance elsewhere. The result is that the remaining members have to pay higher "calls" due to increased mortality. These sometimes become prohibitive to members in advanced age with the result that calls fail to be collected and the scheme collapses. Assessmentism can be successful only if it is made compulsory for all persons in a country above a certain age. This would automatically bring in younger assured every year with the result that the average age of the group and the contributions of its members would remain more or less constant.

The bulk of the present insurance business is carried on by charging "level premium" as contrasted with "natural premium". Under this system the premium remains constant throughout the duration of the contract. The level or the uniform premium payable throughout the whole duration of life is determined by taking into consideration all the deaths as per the Mortality Tables that will occur amongst the group each year till the last man dies. In other words, the level premium is simply the present value of the natural premiums distributed into equalised annual instalments throughout the whole duration of life. Since these premiums are more than sufficient to cover the risk during earlier years, but insufficient to meet them during later years, the excess of premiums paid over the

sum actually required to meet current risks and current expenses and profits is accumulated into a fund called the "reserve" or the "life fund". The cost of procuration of business, the medical fees, the stamp duties and the payment of claims arising during the currency of the first year of the policy usually equals, if it is not in excess of, the first annual premium and consequently the reserve for the first year is *nil*.



The principle that underlies the creation of the reserve fund would be clearly understood by a reference to the diagram. The shaded portion represents the excess level premiums over the natural premiums after making provision for profits and expenses, the balance goes to form the "reserve". With the development of the insurance business along these lines such reserves in the hands of the companies become very large, sometimes running into several crores of rupees. This introduces the second important factor, for these reserves which are invested are utilised together with the interest on investment to meet the claims that arise later on, when the level premium is by itself insufficient. The investment of this fund has become a separate branch of study and due to uncertainties, economic and political, great care has to be taken in selecting suitable channels of investment and supervising them. The interest, or rather compound interest, derived from the investment is taken into consideration at the time of calculating level premiums to the benefit of policyholders who are required to pay lower level premiums.

To carry on the business of insurance a certain amount of money is required to cover unforeseen contingencies and expenses and to pay profits to promoters or shareholders. In the early stages of insurance, profits to the shareholders or promoters were practically non-existent, for the early forms of insurance societies were generally mutual in character. Moreover, expenses were limited and no commission was payable for introducing business. Salaries paid were nominal for the volume of business was small and official positions were honorary. The result was that a nominal addition of, say, 5 per cent. to the net level premium calculated on the basis of an approved mortality table and reasonable interest rates was considered sufficient to cover the expenses of procuring and maintaining business. Thus the factor of loading was of minor importance in the early stages of insurance. But later on, due to determined efforts on the part of companies to undertake large volumes of business, expenses began to rise. Paid middlemen or agents had to be employed, though the commission was for some time small compared to present rates. Larger business necessitated bigger offices, a variety of account-books and ledgers and larger number of employees and officials. Special contingency reserves had to be created for extra benefits granted under the policies.

The cumulative effect of these changes has been that to-day loading included in level premium is about 25 per cent. of the net premium calculated on the basis of the mortality tables selected and the rate assumed. Loading also provides for a certain percentage of bonuses to be declared. From the above discussion we see that the principle of modern insurance is based upon the following three factors:—

(1) Mortality rates,

(2) Interest rate, and

(3) Loading.

A suitable combination of the three factors (by careful selection of mortality tables and assessments of interest rates that can be assumed as safely reliable in future and a sufficient loading) results in gross level premiums. This premium is paid by individual policyholders to the companies with which they enter into contract, and, as such, may be said to appertain to a single life.[1]

The companies, in return, guarantee the payment of fixed sums of money called the "sums assured"—and usually stated as multiples of thousands of rupees (in India)—on the deaths of the policyholders or assured or on their surviving a certain fixed age or period of time. The policy conditions—and they are numerous to-day—determine the scope of the contract. Like other factors in insurance, policy conditions have developed from relative insignificance to utmost importance. They have to-day very much widened the scope of the insurance contract and helped to make insurance popular.

We have at this stage confined our discussion to the basic principles of insurance. The simple form of insurance is the Whole Life contract under which premiums are payable throughout the duration of the contract till it is determined by death, when the sum assured is paid. Amongst modern varieties of assurance Endowment assurance is undoubtedly the most popular. Here the sum guaranteed to the assured is payable if death occurs within

[1] Here it must be clearly understood that the element of mass or number of transactions is still inherent for the affected policy involves a notion of large numbers in the data employed by the company by which the assurance is granted.

a certain period or on his surviving the period. In calculating the premium on Endowment policies companies take into account the probability of having to make the payment by a certain date.[1]

We will now discuss in greater detail the factors of insurance, that is, the mortality rates, the interest rates, the premium rates, and the policy conditions in the following chapters with reference to Indian insurance conditions.

[1] It should be noted that the large variety of policies available are in reality either a modification or combination of the two above-mentioned types of policies. In their cases also the basic principles of insurance remain the same.

CHAPTER V

Mortality Rates

MORTALITY Rate Tables indicate the probability of death at different ages. To arrive at such a table it is necessary to have a large number of people under observation and to note the number of deaths occurring amongst them at different ages. Mortality at any age is obtained by dividing the number of deaths during one year by the number of people alive at the commencement of the period of observation. This, in essence, is the basis on which the Mortality Rates are constructed. With the advance in the study of the subject many improvements have been introduced to which we will revert later.

There are two sources of data from which Mortality Tables are usually constructed. They are, firstly, the census reports based on population statistics and, secondly, the experience of the assured lives of the companies themselves. The mortality tables constructed from census reports do not and cannot take the individual lives into account due to the movement of the people. It is, therefore, possible that the deaths recorded will in many instances be of persons who never figured in any census enumeration. Similarly, it is also possible that the deaths of many individuals who figure in a census enumeration will not be recorded due to their absence from the country. The ages of individuals at the time of enumeration and their death are usually recorded in round figures of complete years and this allows the free play of a human instinct to under-state the present age and over-state the age at death. The birth-date when given is more or less a conjecture in the case of a large number of individuals. The registration of births and deaths has now been made compulsory in India by municipalities and district boards, but in spite of it the above mistakes are likely to occur.

In the case of assured lives also there are many disturbing influences but they can be satisfactorily dealt with and, therefore, from the viewpoint of the insurance companies the mortality tables constructed on the basis of data supplied by assured lives are more equitable and safe. The variations in the rate of mortality do not only depend upon age, but also on the other well-defined

causes. Sex is an important factor because it has been found that the mortality of males is different from that of females. The occupation of the assured and the climatic conditions of a country may have a favourable or an unfavourable effect on the longevity of a person. The marital conditions in females also influence their mortality. The mortality of lives selected by medical examination and the mortality of policyholders under different types of policies taken out at their own choice differ and are in some respects, important factors in the construction of mortality tables. Another disturbing influence that has to be taken into account, is that lives pass out of observation not only by death but also by withdrawal which may be either voluntary on the part of the assured or by the determination of the assurance or by the close of observations while some of the assured are still living.

The modern detailed process employed in the construction of Mortality Tables is the result of patient investigations made during the last 100 years or so in the construction of Mortality Tables which brought out many truths now taken for granted. Also by the introduction of power cards and machines, investigations have lost most of the monotony of the routine process and it has become easier to classify the large volumes of data; but the niceties introduced in an attempt to give weightage to various other considerations and thereby secure a standard mortality table have resulted in the introduction of complicated calculations.

The construction of a Mortality Table which can be relied upon as a safe basis for the financial transactions of a company requires great care. It should, as far as practicable, show the mortality rate which would be met in actual practice so that the monetary calculations based on them be free from errors.

The Mortality Table is constructed on the basis of past experience and is judged in future as to its reliability; therefore, great care is required to gather the appropriate data free from factors which would vitiate the final results. The assembled data of assured lives can be divided into several homogeneous groups on a pre-determined basis affecting the mortality such as males and females or people residing in different geographical areas having different climate. Occupational distribution also brings out interesting results. Distribution on the basis of broad division of

the types of policies taken out, such as Whole Life and Endowment policies, tell their own tale, and investigation into the mortality of people belonging to different economic status shows different mortality rates. In view of the above, it becomes very essential that the selection of data for the construction of a standard table of mortality should be done carefully on definite bases and these should always be remembered at the time of any application made based on the Mortality Tables. Many tables are prepared showing the full effect of the above factors individually but such tables have a restricted use.

We, therefore, see that the selection of data for the construction of the standard table should be homogeneous in character to the maximum possible. This is usually done by restricting the enquiry to the data obtained regarding the male assured under Whole Life and Endowment (with and without profits) policies issued without any loadings. The above two types of policies usually form the bulk of the total business of an insurance company.[1] The volume of data so obtained has to be carefully treated

(1) to eliminate the errors in age,

(2) to give the full effect of selection, and

(3) to note the extent of effect of secular changes in the collective body of the assured.

Errors in Age. As mentioned before, the registration of births has been made compulsory during recent years by municipalities and district boards, but the extracts from such sources are seldom submitted by policyholders for the admission of their age. The School Leaving Certificate or extract from the Service Book are offered by educated and employed people and may be considered as satisfactory in the absence of authenticated information. A large body of the assured offer horoscopes in proof of their age. The horoscope is supposed to be cast soon after birth, and when it is so, it is a good proof. But a horoscope can be made to order on old paper to give it an authentic appearance. Further, horoscopes of younger brothers are sometimes put up in proof of age. As in some cases the *Rashinam* only is mentioned in horoscopes, the mistakes can only be detected by a careful scrutiny of the family

[1] See Business Classification Chart in the Historical Chapter on page 38.

history given in the proposal form. When any evidence, including horoscope, is not available for the proof of age, the life offices accept a declaration of age of the insured from an elderly member of the family.

At the time of "age-proof" submission many mistakes are found. Usually they are the cases of under-statement of age at the time of proposal. This misrepresentation of age is satisfactorily dealt with in actual practice by charging extra premium with interest if the mistake is detected during the currency of the policy; otherwise, the sum assured is proportionately reduced. The above methods are applicable subject to the correct age being within insurance limits of the company. The under-statement of age has, however, a serious effect on the construction of Mortality Tables; for until proof is submitted the age is assumed to be correct. But as a large majority of age-proofs are deferred, the stated ages are taken into account for the construction of a mortality table. This brings about an increase in mortality rates at the younger ages which should properly belong to a later age-group, thereby showing a lighter mortality at higher ages.

The omission to report deaths immediately is another serious problem which has to be taken into account at the time of preparation of mortality rates. Early deaths and deaths at younger ages are usually reported, for, it is unlikely that the deaths that cause financial loss to a family would go unreported. On the other hand, it has been the experience of offices that not only there is delay in reporting deaths at advanced ages but sometimes years elapse before the deaths are brought to the notice of the companies. In Endowment and Paid-up policies where the date of maturity is fixed, the maximum period during which the deaths may go undetected is limited. But in the case of Whole Life policies no such safety exists.

The policies that exist for a few years and are allowed to lapse do not contribute their experience to the mortality rates. It is argued that lives that withdraw from insurance enjoy lighter mortality. Be that what it may, the present Indian Insurance Act makes it obligatory on the part of companies to intimate the paid-up values in all cases where the policies are in force for more than three years and their paid-up values come to not less than Rs. 100.

Thus in future this data will also be available for use, except the data of those policyholders who would exercise their option to get cash value in lieu of the paid-up policies.

Selection. It is evident that lives selected by medical examination for insurance would continue to experience lighter mortality for some years than the general average lives. The length of this experience depends upon the strictness of the examination and usually wears off within a few years. The modern belief is that the selection wears off in two years. Sometimes, however, this selection seems to persist longer. This is due to the improvements in general conditions of living such as improvements in sanitation, new lights on medical science, greater care regarding food and proper attention to the rules of health. Considerable care is taken to improve living, usually after severe epidemics such as the plague of 1898 and the influenza epidemic of 1919 in India. The virulent attacks kill a large number of people and the greater proportion of the victims are those who are already in a state of low vitality and would have been claimed by the Reaper in the following few years. Thus it has been noted that a period of heavy mortality is usually followed by a period of light one. This is known as "Generation Mortality".

Another factor of selection, which has been observed to influence the rate of mortality, is shown by the preference to the different types of policies by the assured themselves. Experience, based on the data supplied by Endowment lives, shows a higher mortality than those supplied by Whole Life policies and the experience of Whole Life Limited Payment policies vary between the above two. The annuitants show a very light mortality and the longevity of the female annuitants has become proverbial. Separate mortality experience is taken out for each of the above factors. But the standard Mortality Tables for males and females comprise the experience supplied by all types of Endowment and Whole Life policies for them separately.

If the period of investigation is short, say, 10 or 15 years, the lighter mortality may seem to persist over a longer period due to the introduction of a large volume of new business in comparison with the business in force at the commencement of observation.[1]

[1] "Notes on the Interpretation of 'Selected' Rates of Mortality" by Elderton and Oakley (*J. I. A.*, Vol. LV).

The effect would be varying with the decreasing, constant or increasing amount of new business, and its proportion to the existing business at the commencement of the investigation.

Another cause that influences mortality is the economic status of the people. Poorer people have heavier mortality. This is markedly clear in warm countries like India. In cooler climates the effect is not so clear. Mr. L. S. Vaidyanathan, of the Oriental Government Security Life Assurance Co., in his article on the "Mortality of Indian Assured Lives,"[1] says, "... in the tropics where the flesh is heir to so many ills peculiar to the climate, prompt diagnosis and treatment of an attack of a disease is imperative and this can be secured only with money. If an attack is neglected, as is usually done in poor families, even if it does not itself kill, it leaves a weakened system highly susceptible to attack by one or other of the several diseases which abound in hot countries." He has brought out the truth of the above statement very clearly in the following comparison that he made between the Oriental's 1925-35 ultimate mortality rate table and the rate table derived from the 1931 census of all-India males and ultimate A 1924-29 Mortality Rate Table and the rate table derived from the census of 1926 of males in England and Wales.

Age	Qx		Ratio	Age	Qx		Ratio
	Oriental 1925-35 Ultimate (1)	1931 Census All India males (2)	(2)÷(1) (3)		1924-29 Ultimate (1)	England and Wales 1926 males (2)	(2)÷(1) (3)
25	.00428	.01530	3.57	22	.00235	.00309	1.31
35	.00552	.02410	4.37	32	.00253	.00381	1.51
45	.01176	.03490	2.97	42	.00439	.00700	1.59
55	.02903	.04810	1.66	52	.00906	.01282	1.42
65	.06039	.07270	1.20	62	.02394	.02916	1.22

The statement speaks for itself.

We now observe that selection is due to

1. Medical examination.
2. Improvements in the methods of living due to development in medical knowledge, sanitation, etc., as also Generation Mortality.

[1] *J. I. A.*, Vol. LXX, Part I.

3. Choice of the types of policies by the general body of the assured themselves.
4. Weightage of new business transacted.
5. Mingling of assured drawn from varying economic status.

The first four causes result in lighter mortality, while the fifth tends to retard it. The effect of this last cause can be minimised or eliminated from the Mortality Tables by restricting the data pertaining to the assured taking out life policies of, say, Rs. 1,000 each or more. As a large number of life companies seldom issue policies lower than this, the effect of a few policies assuring sums of less than that figure would be trivial and as such in any investigation that may be undertaken it is unnecessary to eliminate them. In the case of economically advanced countries it will be necessary to assume a higher sum assured under a policy as minimum to eliminate the people belonging to comparatively lower economic status.

As has been mentioned earlier, the modern mechanised system enables us to handle a large volume of data. But in certain respects it cannot eliminate obvious mistakes. One of them is that several policies on a single life cannot be easily detected. The consequence is that the investigation is carried on, based not on the number of insured existing, but on the policies issued during the period of observation. This means that people who have more than one policy, even if these bear consecutive numbers, will count for more than others who own single policies. The effect of this on general mortality is supposed to be adverse; but opinions may differ, and we may mention here that only lives that are able to pass fresh medical examinations can take the additional policies. The fact that they purchase additional policies goes to support the view that they belong to the higher economic status. Thus mortality experience based on policies issued should show a lighter mortality than the experience taken on the basis of assured lives only.

It should, therefore, not be surprising that due to the influence of the many factors discussed above, the rates of mortality deduced from the data do not progress at a regular flow from age to age. If the data at our disposal were sufficiently large the variations would be narrowed down. Irregularities are, however, removed by

a process called "Graduation" either by means of mathematical formula or by what is known as the Graphic Method.[1]

We have already seen the effect of improvements in living on the Mortality Rate. This secular trend over a number of years and its tendency in the past and present towards lighter mortality is a welcome feature, but it should not be taken for granted that every passing year will show the above effect. Epidemics upset many calculations and may carry off a large number of people in the course of a year. Therefore, in a normal year the actual deaths experienced should be less than the expected ones from the mortality table. Money saved by the insurance companies on this account should not be distributed wholly as profit. A reserve should be created to offset any severe inroads on the life fund during abnormal years of epidemics and war.

Mortality Tables are of three types, viz.,

1. Select
2. Aggregate, and
3. Truncated.

The individuality of each type of table depends upon the method of treatment of the data used and this will be referred to in detail later. The common factors amongst the three tables are that the number of people living at the commencement of each age and the number dying during the year are known. As the deaths are spread over throughout the year, it is assumed that on the average the deaths take place in the middle of the year and the Mortality Rate at any age is obtained by dividing the number of deaths occurring in a year by the number of people living at the commencement of the year increased by half the number of deaths.

In the Mortality Tables we notice a column headed "expectation of life". This means the average number of years which persons of a given age will survive. It is neither the most probable lifetime nor does it disclose when the individual has an even chance of surviving. It is found out by adding the number of living at all ages subsequent to the age for which the expectation is to be calculated and dividing this sum by the number of living at that age and adding 0.5. This 0.5 is added because each person, besides completing a certain number of years, may be expected to live a fraction of another

[1] "Life Assurance Text Book" by R. C. Simmonds, F.I.A., pubd. 1929.

year, some living a large fraction of the year and others small. The chief value of "expectation of life" figures consists in making comparison of death-rates in different mortality tables because it is very little affected by graduation. It should, however, be clearly remembered that no actuarial calculations for financial purposes are based upon it.

We have so far discussed the factors that, acting on the entrance or exit of individuals, affect advantageously or adversely the average quality of lives composing the body of policyholders of a company. In life insurance lives newly assured are under the influence of selection. A Select Table gives rates of mortality, etc., for each age at entry (and for each year of duration), tracing lives from age to age, keeping those together which enter at the same age. Thus for a complete set of selected tables a separate Mortality Table for each age at entry is constructed. The effect of selection is, however, assumed to "wear off" in the course of a few years, say five years, after which the remaining data is grouped together.

In the construction of the "Aggregate Table" no such distinction is made on the grounds of selection. The lives at entry are distributed according to respective ages and the fresh entrants are also added to the lives of the same age irrespective of the time that they might have been on the books of the company.

The third table, known as "Truncated Table", is constructed from the data assembled from which the effect of selection has been completely eliminated, that is, lives are not taken into account until the period of selection is assumed to persist no longer, be it five or ten years.

A little consideration of the above will show that the mortality rate under the Select Tables at younger ages will be comparatively lighter than the mortality evidenced by Aggregate Table. The mortality rate would increase rapidly in the case of Select Table with the "wearing off" of the effect of selection. In the case of Aggregate Table the increase will not be so rapid because of the compensating effect of the new lives entering at different ages. But at considerably advanced ages the favourable result produced by the introduction of new entrants at those ages is not so marked, for the new assurances completed at those ulterior dates, being comparatively few in number, bear a decreasing and negligible proportion to the existing mass of deteriorated lives.

These mortality tables have their advantages and distinctive uses. The Select Table is obviously a proper measure of the mortality on which the formation of premiums of assurance at any given age should be based. The Select Tables follow the course of a statistical congruity of elements by excluding from the data employed for calculations of premium and other requirements in connection with lives newly assured, the incongruous admission of experience consisting of the observations upon lives accepted at earlier ages and the observations upon those admitted at later ages which the members entering at any age progressively attain.[1] Thus they possess a homogeneous character compared with the heterogeneous character of mixed tables. From the above reasoning it will be clear that the premiums calculated from Aggregate Tables will be low for young lives and excessive for older lives in comparison with those deducted from Select Tables. Hence the Select Tables are often employed in preference to other tables in the construction of premiums. Another important use to which the Select Table is invariably employed is in the computation of surrender values. The reason advanced is that lives that surrender their policies are, as a class, superior in vitality than the average body of the assured. The cancellation of these contracts, therefore, increases the rate of mortality due to successive depletion of the vigorous elements which it previously contained. But considering the factors that lead to surrender of policies these days the above does not seem to be the correct representation. However, the practice should continue, for its use safeguards the interests of the continuing body of the assured, although, as we have stated, the reason advanced is defective.

Valuations done on the basis of Select Tables would be the correct estimation of the risks but the process involved would be very intricate and cumbersome. The mixed tables, on the other hand, are easier in use and they bring out ample reserves in comparison with that obtained by the use of Select Tables. This is due to the heavier mortality expected. Thus the Aggregate and Truncated Tables are used in combination or singly for valuation purposes.

A brief historical survey of the well-known Mortality Tables would be a correct prelude to the study of Indian mortality, for it

1 Page 94, "Insurance," by T. E. Young.

shows in a simple manner how the construction of the earlier tables not only facilitated the progress but improved the practice of life assurance societies and thus formed epochs in the history of the progress of life insurance.

The duration of life was long a subject for speculation and the ability to predict with accuracy its duration with large groups of individuals represents a fascinating study. Ulpian, the Roman Jurist, drew up an annuity table and this was certainly one of the first measures of life graduated according to age. In spite of its inaccuracies this table was the best one available up to the close of the sixteenth century. Among the other early tables may be mentioned De Wit's Table used by the Government of Holland in 1671 to raise funds by sale of annuities. In 1693 Dr. Halley published his famous paper, "An Estimate of the Degrees of Mortality of Mankind from the curious tables of Births and Funerals at the City of Breslau with an attempt to ascertain the price of Annuities upon life." Its chief value consisted in the principle which it devised for the calculation of an annuity. This was that the true value of an annuity is to be found by taking the present value of each yearly payment, which according to the Mortality Table is to be made to the life surviving to receive it, the present value being the sum of all these separate calculations. In 1725 De Moivres published his tract on "Annuities and Reversions" in which the following advances were made in mortality calculations:

1. He showed how one annuity value could be calculated from another.

2. His famous hypothesis that there were equal decrements of human life which proceeded regularly for at least short intervals of time, that is, the number expressing living at different ages in a mortality table are in arithmetical progression, the annual decrements of life being equal.

In the earliest days of life assurance in England the tables employed were deduced from population statistics, particularly Northampton and Carlisle Tables, but it was soon realised that these tables were unsuitable for the purpose in many respects. The Northampton Table was constructed on incorrect assumption and showed a very heavy rate of mortality. The Carlisle Table also showed similar results and this defect resulted in the companies

charging heavy premiums for Whole Life policies. These mistakes, however, safeguarded the companies in the early stages and helped them to grow.

The first significant attempt to draw a Mortality Table on the basis of office experience was made in England in 1839. Seventeen offices pooled their experience but the table did not gain general acceptance. Another investigation into the experience of 20 English and Scottish offices was undertaken by the Institute of Actuaries and the results were published in 1869. The tables supported the earlier findings that

(1) the rate of mortality varied with the class of lives assured, and

(2) the selection of assured lives by medical examination rendered them as a class better than the general population.

The importance of this table is, however, in finding out that the duration of assurance has great effect on mortality. Immediately following the medical selection, lives assured continue to experience appreciably light mortality for a number of years. On this basis Dr. T. B. Sprague constructed the Select Tables from the data of 20 offices' healthy male experience. He traced the effect of selection for the first five years after which period the rate of mortality was continued on the basis of combined experience of all lives assured at the same age.

The next stage in the development of Mortality Tables was marked by the enquiry under the joint auspices of the Institute of Actuaries and the Faculty of Actuaries into the experience records of 60 British offices during the period 1863 to 1893.[1] This investigation established a further proposition that selection is not only exercised by the offices but also by the assured, since the latter show, by the class of assurance taken, a selection adverse to the office. This adverse selection can be summarised in the phrase "The lower the rate of premium the higher the rate of mortality."

The Mortality Tables of the last two experiences are widely used. For convenience of reference the table deduced from the 20 offices' experience is indicated by the letter "H", and 60 British

[1] "British Office Life Tables," 1893—now published by Cambridge University Press.

offices' experience by the letter "O" and the particular table (whether Select, Aggregate or Truncated) is indicated by the letter or letters on the right-hand top corner. Since principal tables in both cases refer to Whole Life assurance with profits, no special symbol is used to indicate this class of insurance, but for the other classes the initial letter for the name of the class of assurance is employed. Thus "E" indicates Endowment Assurance, "N" stands for Non-participating, "A" for Annuity and so forth. The letters "M" and "F" are added to indicate the sex. When the identifying letters are enclosed in square brackets Select Tables are referred to, and when a numeral enclosed in round brackets follows the denoting sex the Truncated Table is indicated. Thus $O^{[NM]}$ stands for Select Table deduced from the experience of 60 British offices under Non-participating Whole Life assurance on male lives. $O^{M(5)}$ stands for the Truncated Aggregate Table excluding the first five years of assurance under Whole Life Participating assurance on male lives.[1]

The last comprehensive investigation into the mortality of assured lives made in England relates to the experience of offices during the period of 1924 to 1929 and is distinguished by $A^{1924-29}$. More than 50 offices contributed their experience. This table shows lighter mortality than the previous two comprehensive tables of H^M and O^M, but brings out the startling fact that the effect of selection does not last longer than two years. English companies are already adopting this latest table.[2]

In India the H^M or $O^{M(5)}$ tables with several years rating up are generally in use. Under the above, the rated-up period is added to the age of the life assured, and the mortality at such an age is assumed to apply. There are a few special tables such as the American Tropical, the Manchester Unity Experience, the Barbados Tables, etc., but their use is limited to a few companies and they are being replaced fast. A list of the Mortality Tables used by Indian companies in their valuations and the different periods by which such tables are rated up are shown in the annexed statement.

1 For more information regarding the above and other tables, please refer to "Life Assurance Text Book," Chapter IV, by R. C. Simmonds, F.I.A.

2 "Continuous Investigations into the Mortality of Assured Lives," University Press, Cambridge, 1933.

Mortality Tables used in Valuations

1. Special
2. American Tropical
3. Manchester Unity Experience (1893—97)
4. O^{M}
5. O^{M} with 3 years rating up
6. O^{M} with 5 years rating up
7. O^{M} with $5\frac{1}{2}$ years rating up
8. O^{M} with 6 years rating up
9. O^{M} with $6\frac{1}{2}$ years rating up
10. O^{M} with 7 years rating up
11. $O^{M(5)}$
12. $O^{M(5)}$ with 4 years rating up
13. $O^{M(5)}$ with 5 years rating up
14. $O^{M(5)}$ with 6 years rating up
15. $O^{M(5)}$ with 7 years rating up
16. $O^{M(5)}$ with 8 years rating up
17. H^{M}
18. H^{M} with 5 years rating up
19. H^{M} with 6 years rating up
20. H^{M} with 7 years rating up.

Investigations into the mortality rates of lives assured in India are few and far between. There are, however, a few Indian companies which have investigated the mortality of Indian assured lives but only one Indian company has so far published the results of its investigation.

Among the first attempts may be mentioned the work of George F. Hardy in the early eighties with regard to the assured lives of a mutual company. He is also known for the deduction of mortality rates amongst Indians based on the 1881 census.

Another investigation into the mortality of Europeans in the East India Covenanted Services was undertaken by A. J. Finlaison. The results were published in 1874. Mr. A. T. Winter investigated the mortality experience of the lives assured by the British Empire

Mutual Life Assurance Company during the years 1872—1902 and the results were published in 1909.[1]

The Standard Life Assurance Company investigated their experience of assured lives for the periods of 1870-85, 1895—1900 and 1846—1900. Mr. S. C. Thompson in his "Notes on Mortality in India and some other Tropical Countries"[2] remarks that

"In India, more than any other country, an improvement has been going on and the death-rate has materially decreased so that the old tables of Woolhouse, Samuel Brown and others are no longer applicable to the circumstances of the present day. The causes which have contributed are well known, viz., better sanitation, more frequent change to home or to the hills as the result of improved means of communication, simpler and sounder modes of life with a more moderate use of stimulants, the more frequent presence of ladies in the country and most recently the destruction of malarial germs or insects which play so large a part in carrying the infection from them . . . . The causes of death and incidence of mortality in India will always vary from what these are at home, and it must specially be borne in mind that the value of selection in India is not so potent a factor as at home, in reducing the death-rate during the early years of assurance. Doubtless a sound and healthy constitution, free from taint of disease, will in many cases tell favourably, but a number of diseases which prevail in India and which on most sanguine computation it will take many years to stamp out—such as cholera, malaria and other fevers—may attack the strongest, while fatal accidents are also probably more common, and none of these causes can be eliminated by selection."

The results of the investigations show that the mortality among the assured had progressively diminished. The actual death experience during the period 1846 to 1900 was only 90 per cent. of the expected deaths by Standard EI experience of 1870-85. The restrictive investigation of 1895 to 1900 showed a percentage of 73.78 to the table above referred to.

In the Government of India report on Life Assurance Companies doing business in India for the year 1915, we find Mr. H. G. W. Meikle, the then Government Actuary, appending the following note:

"I am of the opinion that the younger companies will not be assuming an excessive rate, whether as the basis of the premium rates or in their valuations, if they adopt a rate equal to that given in the OM(5) table with an additional 7 years to the age of the life assured."

1 *J. I. A.*, Vol. XLIII.

2 "Transactions of Faculty of Actuaries" (No. 10, Vol. I).

The mortality rate obtained by the above method is on the high side, but at the same time it is on the safe side. However, in view of better results obtained from subsequent mortality investigations, the above would now appear to be antiquated. It is interesting to note that Mr. H. G. W. Meikle investigated the mortality experience of the Oriental Government Security Life Office for the period 1874—1902, to which we will refer later on.

Dr. Arthur Hunter, Chief Actuary to the New York Life Assurance Company, investigated the mortality experience of the Indian business written by the company during the period it functioned in India, i.e., 1885—1921.[1] He says,

> "In the early years a goodly proportion of their policies were issued to British residents in India, but this condition gradually changed so that since 1900 the great majority of the policies were granted on natives of India. The change was partly due to the British companies granting the former more liberal treatment than we did. In determining the rates of premium, our company did not distinguish between the natives of India and others."

The peculiar feature of this investigation is that the data by amounts insured are used and as the influence of selection was found to be of short duration, all years of issue and all durations are combined.

Dr. Hunter struck a pessimistic note as regards the result of the investigation which showed that the mortality did not record any improvement in the latter part over the earlier years. The reason for such incongruity was due to the facts that in the later years there was a general falling off of business due to the war period and a large number of policyholders succumbed in the influenza epidemic. But there can be no doubt as to the general conclusion that in spite of knowledge and improvements in sanitation the health of the insured Indians was not affected considerably.

The Oriental Government Security Life Assurance Company has investigated the mortality experience of its assured from the very inception of the company. In all five investigations were made for the periods of 1874-97, 1874—1902, 1874—1913,

[1] *J. I. A.*, Vol. LVII, of 1926.

1905-25 and 1925-35. These investigations were conducted to secure, amongst others, the following results:

1. Construction of graduated ultimate mortality table on the basis of Hindu experience alone for the company's own use. (The Hindus form the bulk of their assured, and have the heaviest mortality.)

2. Secular trend in the mortality of Indian lives taking all classes of policies together (i.e., comparison by periods).

The reason for the adoption of Hindu experience only for the construction of the standard Mortality Table is, that if the data relating to all the communities composing the experience had been combined, the resulting table would not have satisfied the essential requirements of a standard, because the various communities are subject to different rates of mortality, and unless in the new business underwritten from year to year these groups enter in the same proportion as existed in the experience analysed, the rates of mortality to which the new entrants would be subject, in the aggregate, would deviate substantially from the experience of the past, simply by reason of the disturbance of these proportions. The above reason was given in the publication of the results of the fifth investigation, but applies with equal force to the previous investigations also.

The percentages of policies effected by healthy male Hindus to the total business written during the five periods are as follows:

I	II	III	IV	V
72.6	73.0	76.9	78.6	81.3

As the mortality experience is also the heaviest, the adoption of the above for the construction of the standard Mortality Table is justified, for the result is automatically guarded against understatement of mortality, which very vitally affects the financial operations of a company, such as premium calculations, granting of surrender values and periodical valuations, etc. The graduated rates of Select and Ultimate mortality determined by the investigations relating to the periods of 1905–25 and 1925–35 are given in the attached statement.

Graduated Rates of Mortality of the Policyholders of the Oriental Life Office

Age	1905-25		1925-35	
	Select	Ultimate	Select	Ultimate
20	.00572	.00725	.00328	.00420
25	.00632	.00817	.00334	.00428
30	.00667	.00887	.00363	.00465
35	.00745	.01001	.00431	.00552
40	.00927	.01263	.00599	.00768
45	.01257	.01743	.00917	.01176
50	.01789	.02513	.01454	.01864
55	.02551	.03663	.02264	.02903
60	.03488	.05097	.03342	.04285
65	..	.06685	..	.06039
70	..	.08643	..	.08288
75	..	.11254	..	.11123
80	..	.15145	..	.14776

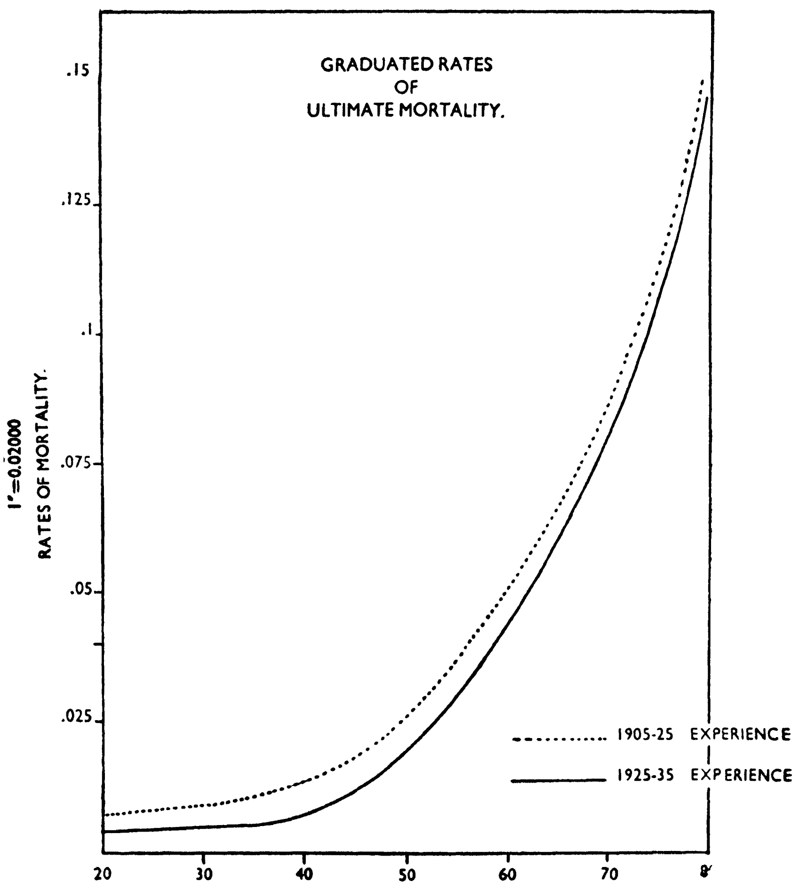
The long-term variations in the mortality experience of Hindus are shown by the following table on the basis of 1,000 deaths in Period I:

I	II	III	IV	V
1,000	1,122	1,089	932	627

The improvement is a matter for gratification. The upward trend of mortality rate during the periods II and III is substantially due to the severe epidemics of plague which ravaged Bombay Presidency (to which the company's business was most confined during the first few years after its inception) for a few years since 1896. The fourth period experienced the influenza epidemic of 1918 but included the years of light mortality following the plague epidemic and also the years of light mortality following the influenza epidemic. Had it not been for the influenza epidemic the experience would, no doubt, have been still lighter. The decennial period of the fifth investigation commencing from 1925 was singularly free from any epidemics. The improvement of over 37 per cent. in comparison with the mortality of period I, and of nearly 33 per cent. with that of the period immediately preceding is, therefore, not unexpected.

It is of interest to note here that the greatest improvement in mortality was observed between the ages 25 and 40. During the

middle of this age period, i.e., during the early thirties, mortality was exceptionally low and only formed about 50 per cent. of that prevailing at the corresponding ages during the period of investigation of 1905–25. This improvement in mortality saves the dependents from enormous financial loss. From age 40 onwards mortality tends to approach that prevailing at corresponding ages during the early period, yet keeping substantially lower than the latter. Even in the early fifties it is in the aggregate only about 75 per cent. of what it was in the period 1905–25 and although at the older ages it has been slowly taking a turn upwards, nowhere is the ratio equal to unity.



Commenting on the latest Valuation Report of the Hindustan Co-operative as on 30th April 1937, an insurance journal[1] suggested that the society should make an investigation before its next valuation into the mortality experienced by it since the beginning. It being the second largest company, the experience would certainly be very valuable. The following extract from a letter written in reply to the above suggestion by the Secretary of the company, Mr. N. Dutta (now Chief Officer) published in the issue of September 1938 of the same journal is relevant.

> "You will probably be interested to learn that such investigations were made by our late Actuary, Mr. L. E. Clinton, in connection with our valuations in 1922, 1927 and 1932 with the result that the mortality table was differently loaded for Endowment and Whole Life assurances. On the present occasion also our Consulting Actuary made a similar investigation much exhaustively with the increased facilities afforded by our Hollerith installation. The mortality experience of the Endowment assurances (which form about 83 per cent. of our total business) for the quinquennium under reference was found to be only 65 per cent. (by number of policies) of the expected under the $O^{M(5)}$ table with the addition of three years. The experience for Whole Life assurances was somewhat less satisfactory which accounts for the retention of the large addition of 8 years to the standard table used."

In recent years a few companies have started giving in their valuation reports a comparative statement of the expected deaths according to the tables of mortality assumed and the actual deaths. This is a step better than the previous practice of stating that the actual deaths were only such and such percentage of the expected deaths. However, no Indian company other than the Oriental has so far published, for public information, the mortality experience of its policyholders.

Before we close our discussions on the Mortality Rates of Indian policyholders, we would digress a little on the Mortality Rates of Indians. The attached tables A and B show the comparative rates of mortality at decennial ages as deduced from the 1881, 1891, 1901, 1911, 1921 and 1931 all-India census with the corresponding rates deduced from the 1911 and 1921 censuses for England.

From statement A we see that the Indian rate of mortality is comparatively higher than that of England and that the secular t rend in mortality in India is marked with ups and downs. Comparing

[1] August 1938 issue, the *Indian Insurance Journal*, Calcutta.

the results of the 1931 census even with that of the 1881 census, we do not observe any appreciable improvement. In fact, the mortality rates between the ages of 35 and 55 are higher than those obtained from the 1881 census. In the case of England, the secular trend towards lighter mortality is easily noticed. The comparative expectations of life at decennial ages as deduced from the results of censuses in all India and in England for male lives are shown in the statement given in the Appendix.[1] Here also we observe that the expectation of life of Indian males as determined by the 1931 census has not much increased over that of the 1881 census. As a matter of fact, for the ages of 30 and 40, the expectation of life is lower than that determined by the 1881 census, whereas the increase in the case of England is substantial although the comparison is between the results of the 1911 and 1921 censuses.

TABLE A

Comparative Rates of Mortality (100 *QX*) *at Quinquennial Ages as deduced from the results of the* 1881, 1891, 1901, 1911, 1921 *and* 1931 *Census in All India with Corresponding Values for England*

(MALE LIVES)

Age	All India						England	
	1881	1891	1901	1911	1921	1931	1911	1921
0	28.41	27.26	28.54	29.00	..	24.87	12.04	9.00
5	2.41	2.68	2.67	2.75	2.52	1.93	.49	.42
10	1.11	1.14	1.24	1.25	1.22	.79	.19	.18
15	1.56	1.13	1.17	1.32	1.26	.98	.23	.22
20	1.85	1.39	1.43	1.69	1.42	1.27	.35	.35
25	2.00	1.69	1.69	2.03	1.68	1.53	.40	.40
30	2.18	2.04	2.02	2.37	2.10	1.93	.48	.43
35	2.38	2.43	2.49	2.77	2.67	2.41	.62	.55
40	2.66	2.85	3.01	3.24	3.33	2.94	.81	.69
45	3.05	3.37	3.64	3.72	4.00	3.49	1.09	.88
50	3.66	3.98	4.30	4.28	4.72	4.10	1.48	1.18
55	4.61	4.78	5.09	4.98	5.46	4.81	2.11	1.76
60	6.12	5.93	6.25	6.00	6.31	5.79	3.04	2.56
65	8.50	7.64	8.14	7.57	7.43	7.27	4.38	3.98
70	12.18	10.16	11.36	10.17	..	9.76	6.47	6.00
75	17.68	13.93	16.12	14.71	..	14.27	9.75	9.38
80	25.28	19.58	23.55	22.55	..	21.80	14.30	14.00
85	36.17	28.03	33.88	36.35	..	36.08	19.91	19.97
90	62.50	40.62	47.86	57.20	..	57.70	27.40	26.75

(Particulars taken from page 162 of the Census Report, 1931, Vol. I, Part I.)

[1] See Appendix II.

Table B relates to the mortality of female lives. It actually shows a higher rate of mortality over several age-groups between 15 and 50 even over any of the previous censuses. The comparative expectations of life at decennial ages of females as deduced from the results of censuses of all India and England are given in the Appendix.[1] This statement shows that the expectation of life is lower in 1931 between the ages 20 and 50 than that determined in 1881, whereas the expectation of life shows a marked increase in England. This unhealthy development in India in regard to female mortality (the mortality of female assured lives is not known) has resulted in eschewing life business from this quarter and when a proposal is accepted it is only under certain restrictions and heavy extra premiums.

TABLE B

Comparative Rates of Mortality (100 *QX*) *at Quinquennial Ages as deduced from the results of the* 1881, 1891, 1901, 1911, 1921 *and* 1931 *Census in All India with Corresponding Values for England*

(FEMALE LIVES)

Age	ALL INDIA						ENGLAND	
	1881	1891	1901	1911	1921	1931	1911	1921
0	24.26	23.99	25.88	28.46	..	23.23	9.77	6.94
5	2.20	2.63	2.91	2.62	2.78	1.65	.48	.42
10	1.14	1.31	1.49	1.29	1.55	.81	.20	.18
15	1.75	1.56	1.48	1.34	1.57	1.15	.24	.23
20	2.14	1.81	1.72	1.70	1.73	1.76	.29	.31
25	2.27	2.01	2.00	2.00	1.92	2.16	.34	.35
30	2.37	2.21	2.24	2.31	2.24	2.51	.41	.39
35	2.47	2.46	2.46	2.66	2.72	2.93	.52	.45
40	2.59	2.71	2.77	3.08	3.26	3.45	.66	.53
45	2.79	2.99	3.21	3.53	3.81	3.90	.85	.67
50	3.15	3.37	3.76	4.06	4.40	4.31	1.14	.92
55	3.89	3.97	4.49	4.74	5.01	4.75	1.61	1.32
60	5.35	5.05	5.59	5.78	5.77	5.43	2.31	1.90
65	7.73	6.77	7.50	7.44	6.99	6.66	3.34	2.99

(Particulars taken from page 164 of the Actuarial Report incorporated in the Census Report 1931.)

1 See Appendix III.

The annual rates of mortality based on the official population as determined by the latest census and death statistics as reported in epidemiological reports of several countries are given in a tabular form in the Appendix.[1] This statement is taken from the Annual Epidemiological Report for 1936 published by the League of Nations from Geneva in 1938. The figures relate to the mortality rates as experienced in age-groups of five years, but they enable us to make a fair comparison of the mortality rates in different countries and to observe the trend therein. We note that in each age-group India shows the highest mortality. This is one of the reasons of the higher rate of life insurance premium charged in India.

A life-table of males constructed from the official data on population as determined by the census of 1931 is also given in the Appendix, and reference to it will be made later.

Coming to our proper theme of the study of the mortality of Indian assured, we observe that the need for more intensive study is self-evident A combined investigation by a number of companies, especially the old-established and big ones, would be a right move. A large volume of data is already in their hands and their rapid expansion of business will enable them to have a continuous check on the results. The lessons of the problems faced in securing data and the process involved in classifying the same according to the recent 1924–29 experience in England may be utilised here with necessary changes to suit Indian conditions.

In the discussion on a paper relating to Indian assured lives by Mr. L. S. Vaidyanathan,[2] Mr. W. Palin Elderton said:

> "From the statistical point of view he had the feeling when reading any paper on mortality that really Actuaries and Statisticians knew little about it; they were still groping after its meaning and the interpretation of the statistics. The more investigations made into the mortality in various parts of the world and in various types of business, the better."

In view of the above remarks, said rightly in connection with discussions on Indian mortality, and the immense advantages that accrue from special investigations, it is unfortunate to note that an

1 See Appendix IV.

2 *J. I. A.*, Vol. LX, July 1929.

attempt to have a combined mortality investigation of the policy-holders of Indian companies under the ægis of the Indian Life Assurance Offices Association, undertaken a decade ago, fell through for various reasons. In spite of the failure, the Association does not seem to have given up the idea of a joint investigation, and it is hoped that as soon as it is free from the immediate pressing problems connected with the advent of the new Insurance Act and other problems facing the business due to the present war, it will vigorously take up the cause of the joint investigation of the mortality experience of its member-companies.

CHAPTER VI

Interest Rate and Investment of Life Assurance Fund

We have already seen that in the level premium system of life insurance a large amount of funds accumulates in the hands of the offices, which, not being required immediately, is invested to yield interest. Due to competition and with a desire to serve the interests of the policyholders, rates of premium are reduced on the assumption that a certain minimum rate will be earned on that part of the premium not immediately required to meet the claims, expenses of office and distribution as profit. The expected rate is assumed after careful observation of the past experience of yields in the fields in which the investment is made and whether such expectation would be justified in the future, taking the political and economic factors into consideration.

The actual interest rate assumed in the calculations of premiums is a closely guarded secret of the office concerned. The rate varies with the types of policies issued. Short-term policies or long-term policies may be encouraged by a slightly higher rate of interest being assumed in the calculation of premium of one or the other.

The rates assumed in the case of Double Endowment assurances or other types of policies which grant special privileges only at the end of a certain number of years are usually higher than the rates for the calculation of Endowment or Whole Life policies. Taking all things into consideration, it may be safely said that the general rate of interest assumed in the calculation of premium varies between 2½ per cent. and 4 per cent., with a few exceptions of the like mentioned above when it may be even 4½ per cent. We will now discuss the general problems of investments and thereafter analyse the assets of companies to find the trend of investments in different channels.

Investment of Life Assurance Fund. Any discussion as to the problem of investment of life fund will remain incomplete without

a reference to Mr. A. H. Bailey, Actuary of the London Assurance Corporation, who said in 1862:

> "I think it will be admitted that the finances of life assurance societies ought to be managed on some clear general principles and not, as is sometimes the case, left to depend upon the passing impulses of the day, or on ideas derived from other and very different pursuits."

He formulated five principles of investments, viz.,

1. That the first consideration should invariably be the security of capital.
2. That the highest practicable rate of interest be obtained, but that this principle should always be subordinate to the previous one, the security of capital.
3. That a small proportion of the total fund (the amount varying according to the individual circumstances of each case) should be held in readily convertible securities for the payment of current claims, and for such loan transactions as may be considered desirable.
4. That the remaining and much larger proportion may be safely invested in securities that are not readily convertible.
5. That as far as practicable the capital should be employed to aid the life assurance business.

The essential principles of investments defined by Bailey in 1862 still hold good although modifications have been made necessary by the changing character of insurance business. For example, Mr. Bailey did not make any suggestions for writing off capital. Thus, according to him, investment in a 7 per cent. debenture redeemable at par 20 years hence, but purchased at 110, would at first sight appear to involve loss of capital at maturity and should, therefore, be avoided. But this is not so. Insurance companies actually like such investments and out of the interest income provide for writing off the difference between the purchase price and redemption price. The necessary conversion of a part of the income into capital or *vice versa* can be made by adopting a suitable system of bookkeeping.

Again, Mr. Bailey says:

> "It may seem a bold assertion that English funds are altogether unsuited for life assurance investments. For income they probably offer the best

security the world has yet seen; but with us that is a secondary consideration; the capital, the security of which is our first object, is subject to very inconvenient fluctuations in value."

Mr. Bailey was referring to irredeemable securities, the main variety of securities then available. These were and still are, as also the long-dated Government securities, subject to very inconvenient fluctuations in value. The following index gives us an idea of the fluctuations in the value of fixed-interest long-dated Government stock in the United Kingdom due to changes in the current rate of interest. Here the changes were sometimes too large to have been adequately foreseen and provided for.

Yearly Average Price of $2\frac{1}{2}$ per cent. Consolidated Stock of the U. K.

Year	Price	Year	Price	Year	Price
	£		£		£
1890	96	1905	90	1920	47
1891	95	1906	88	1921	48
1892	96	1907	84	1922	56
1893	98	1908	80	1923	57
1894	101	1909	84	1924	57
1895	106	1910	81	1925	56
1896	110	1911	79	1926	55
1897	112	1912	70	1927	55
1898	110	1913	73	1928	56
1899	107	1914	..	1929	54
1900	99	1915	65	1930	55
1901	94	1916	58	1931	57
1902	94	1917	54	1932	67
1903	90	1918	57	1933	74
1904	88	1919	54		

It will be seen that an investment in above Consols in, say, 1896, would have resulted in loss of between two-fifths and one-third of the value of the capital in about 15 years' time. In the absence of any compensating movement in the value of the other investments or of exceptionally large reserves, whether actual or potential, such a development may affect the stability of an insurance concern, which has invested a large proportion of its funds in those securities.

But since the time of Mr. Bailey, the field of investment has widened both in character and geographically, and this has enabled

insurance concerns to spread their investments over various classes of securities. Even Government securities give a wide choice of long-dated, medium-dated and short-dated securities, and the increase in public borrowing by Provincial Governments and Public Utilities, Municipal Corporations, Port Trusts, etc., present the offices with a very wide choice to make their selections from. This, in fact, has been done by insurance companies in recent times, as will be evident from the following figures.

(In lakhs of rupees)

Year	INDIAN GOVERNMENT SECURITIES				Port Trust, Improvement Trust and Municipal Securities.	Total
	In terminable securities	4%	3½%	3%		
1926	2,75	32	5,04	49	2,83	11,43
	(The above figures relate to the assets of 51 companies whose total assets for that year amounted to Rs. 16,17,44,000)					
1927	2,76	40	5,13	96	3,16	12,41
	(The above figures relate to the assets of 56 companies whose total assets for that year amounted to Rs. 17,73,04,000)					

During the Great War, Government securities were largely subscribed, due to a spirit of patriotism, and also because the yields by comparison with the pre-war period, were not unattractive even after taking into account the high rate of income-tax of the war period. Also during the recent Depression, the depreciated Government securities produced handsome dividends and amidst the prevailing chaos appeared as most suitable for investment.

If Mr. Bailey were alive to-day, he would have voted in favour of Government securities, which gives security of capital, first consideration, and a good yield, his second contention. The borrowing by public bodies which spend on social utilities and public welfare tends to increase the standard of life which ultimately results in the furtherance of insurance business, which was his fifth, but not the least important, consideration.

A third passage attributed to Mr. Bailey's famous paper says,

> ". . . . . . Life assurance societies, unlike banks and commercial enterprises generally, are not exposed to sudden or unusual demands on their resources in times of panic or financial difficulties."

He was correct in the year he was speaking. The condition of insurance business in his country probably was as he describes it. In our country, too, insurance business was being carried on by a few mutual sectarian companies for the benefit of the members of their community, although it must be said to the credit of their Christian promoters that they carried on the business on sound lines. They had not to face so many complex problems as are unfolding themselves to-day. The following passage in the Directors' Annual Report of 1886 of the Bombay Mutual Life Insurance Society, a concern now in the front rank, makes interesting reading to-day: —

> ". . . . . . Some of our members have suggested that it would be an attractive feature if the 'Mutual' granted its members loans, as done by other societies. It will be in the recollection of some that a specific proposition to this effect was put forward by one of our members, but opinion of the counsel taken upon the proposal is that it would contravene our constitution to grant loans even upon the security of the surrender value of our policies."

It was only in the year 1898 that the above restriction was removed and loans granted on the security of policies. Moreover, compared to present practices, the surrender values of policies were calculated very niggardly. Naturally under these circumstances the risk of any run on the funds of this insurance company or any other company similarly placed must have been very small.

The present practice of quoting surrender value as a percentage of all premiums paid except during the first year, or endorsing these surrender values on the back of the policy, has exposed the companies to sudden and unexpected demands on their resources during financial crises—that is, on occasions which coincide with the depletion of the life fund due to depreciation in investments and default in interest payments on such investments. The privilege of getting a loan to the maximum extent of surrender value at a reasonable interest would have been regarded with surprise even as late as the "eighties". Now no company can dream of successfully carrying on the business if it is not prepared to give loans at moderate rates.

The difficult situation in which insurance business has thus been placed may be judged from the experience of American and Canadian companies during the last Depression. There was a great rush on the part of policyholders to realise the surrender value of their policies or to secure loans against them. The policy loans formed 12 per cent. of the total assets in 1926, which increased to 17.9 and 17.8 in 1932 and 1933 respectively.[1] The percentages of loans to total assets of individual companies in America in normal times vary between 10 and 15 per cent. This proportion increased in 1932 and 1933, reaching nearly 20 per cent. in some cases. The surrenders also correspondingly increased. The funds had to pay out big claims especially due to suicide amongst large policyholders and at the same time face the loss in income due to fall in new business and increased lapses. As a result of this unhappy experience the Superintendent of Insurance in the State of New York in 1933 framed rules which permitted insurance companies "to pay death benefits, annuities and matured endowments, but suspended temporarily payment of policy loans, surrender values and withdrawal of funds which have been left with the company." Similar rules were framed in several other States. Even then, the companies had to secure outside assistance, especially from the Finance Reconstruction Corporation to meet such claims for loans and particularly surrenders; otherwise they would have been forced to realise portions of their assets at much less than their "conventional" or Commissioner's value.

The conditions in India were slightly different. The surrenders and loans increased very rapidly in proportion to the new premium income and the life fund respectively, as will be evident from the following figures:

Year	Surrenders	Percentage to new premium income	Loans	Percentage to life fund
	Rs.		Rs.	
1927	9,56,000	3.3	1,40,45,000	8.9
1929	12,67,000	3.2	1,83,43,000	9.8
1931	21,13,000	4.5	2,62,63,000	11.7
1932	23,97,000	4.5	3,06,53,000	12.2

[1] Footnote on page 275 of "Life Insurance" by Joseph B. Maclean.

The lapses were also on the increase and in 1931 policies worth Rs. 7,70,39,000 lapsed, which works out to more than 40 per cent. of the new policies issued in that year. In spite of this increase of surrenders, loans and lapses due to business depression, the Indian companies, however, received strong support from the nationalist movement and not only maintained but improved their position, due to increasing amounts of new business.

For comparison's sake we append below a table compiled from official returns, in respect of premiums and surrenders of business within the United Kingdom[1] whilst the figures are such that they speak for themselves.

Year	Premiums	Surrenders	Percentage
	£	£	
1925	57,921,047	4,460,671	7.70
1926	58,494,934	4,734,699	8.09
1927	63,907,441	5,536,190	8.66
1928	68,171,779	5,640,334	8.27
1929	69,811,308	6,774,973	9.70
1930	66,754,929	18,388,630	27.55
1931	65,267,971	12,650,403	19.38
1932	67,866,408	12,101,728	17.83
1933	71,367,765	9,625,009	13.49
1934	71,452,673	8,364,816	11.71
1935	74,330,383	8,110,322	10.91

To meet such crises in future, the American companies have inserted a new clause in their policies reserving the right to defer payment of the surrender value for six months in case of necessity. In view of the American example, and serious consequences that would have resulted but for the timely nationalist movement, it would be desirable and a wise step on the part of Indian companies to insert a clause in new policies deferring the right to pay the surrender value for a period of not more than six months, in exceptional circumstances.

It would, therefore, be observed that both in theory and in practice the life funds are not exactly invulnerable, that they are subject to occasional runs, especially during economic depressions and crises, and that Mr. Bailey's argument does not hold good

[1] Statement taken from *Policy*, 29th July 1937.

under conditions which exist to-day. Mr. Bailey would be wrong, if he were alive to-day and insisted on his arguments. "Convertibility" of the fund is largely an academic question. No substantial sales can be effected at any time without substantial loss and, in extreme cases, disastrous loss, if indeed a market could be found at all. But there is no gainsaying the fact that a substantial proportion of the fund should be kept in easily realisable securities to overcome sudden demands for surrender values and loans.

The fourth principle complementary to the one just now discussed also enables the company to keep its funds liquid. It is the principle of "diversification" of investments. Broadly speaking, investments can be distributed within the limits imposed by law in three ways:

First, they can be spread in different proportions over the various types of assets, such as mortgages, loans on policies within their surrender value, loans on stocks and shares, securities of Indian or British, Colonial or foreign Governments, shares of Indian companies and land and house property. The actual proportions are shown in statutory balance-sheets and will be referred to later.

Secondly, within any one group a further distribution can be made according to the industrial character of the investments, e.g., investments in stocks and shares may cover a large variety of industries, including agriculture. Mortgages may be secured upon landed property or on specific portions of buildings and machinery of different industries.

Thirdly, investments should be distributed geographically. The yield from, and the capital value of, investments in particular areas are subject to fluctuations caused by a large number of factors, e.g., economic, political, etc. But since these do not take place simultaneously in all areas, the average risk of investment is reduced by spreading them geographically.

We might here consider the problems of investment outside national boundaries. It is not possible to enunciate a general principle either in favour of or against such investment. The extent of foreign investment, apart from the compulsory deposit either in cash or in securities approved by a country, necessary practically

in all countries as a condition precedent to commencement and carrying on of business, will depend, as in all cases of investment, upon the balancing of risks on the one hand and the chances of profit on the other. But by its very nature an insurance company has to strike its balance at a lower level than others and, therefore, eschew fields of investments where risks are great though ultimate profits may also be high. Now, in general, investments outside the national boundary entail greater risks than investments within it and hence the presumption against foreign investments. But evidently where an insurance company has shouldered liabilities to outsiders, it must *pari passu* increase its investments abroad. Indeed, this is what insurance companies are to-day almost mainly required to do by the insurance laws of most countries. For Indian companies, however, the question is more theoretical than practical. Very few Indian companies have as yet succeeded in securing business from outside. In the year 1929 the new sum assured on account of foreign business by all the Indian companies amounted to Rs. 89,79,000 which increased in 1935 to Rs. 1,24,09,000 having a premium income of Rs. 7,44,000 and single premium of Rs. 8,000.[1] But the above business is mostly, if not wholly, from Indians staying abroad, particularly in African colonies, Iraq, Singapore and Malay States, and the ultimate liability of the Indian insurance company is to the relations of the assured who are mostly in India. Therefore, the problem of foreign investment is not acute in India.

The assets of an insurance company as shown in the balance-sheet are divided under several heads. The capital expenditure, preliminary and organisational expenses, deficits, etc., appear in the balance-sheet of newly started and weak companies as an asset, but it is generally written off at the earliest opportunity, so that no amount appears against this item in the balance-sheet of well-established companies.

1 Out of the above, the Oriental was responsible for writing new sum assured amounting to Rs. 74,52,000 with annual premium income of Rs. 4,54,000 and single premium of Rs. 7,000. The Bombay Life secured Rs. 11,10,000 business with a premium income of Rs. 59,000 and single premium of Rs. 1,000. The total sum assured and bonuses remaining on the books of all the Indian companies in 1935 amounted to Rs. 5,61,28,000 with a premium income of Rs. 29,17,000. The share of the Oriental amounted to Rs. 3,97,58,000 sum assured and bonuses with a premium income of Rs. 20,29,000. According to the Indian Insurance Year Book, 1939, a considerable rise has occurred in the new business written and the total business remaining in force. Apart from general improvement it is due to the fact that the business underwritten in Burma is now treated as foreign business.

The agents' balances, outstanding premiums, outstanding and accrued interest, etc., in 1935 amounted to Rs. 2,29,93,000 out of the assets of Rs. 45,80,09,000 of all the Indian companies.

The agents' balances arise from the practice of companies advancing money to them against expected business and are usually fully secured by the commission payable on the renewal premiums. In spite of these safeguards, however, shrewd agents often dupe the companies, especially newly started ones. Sound companies always like to reduce this amount to a negligible fraction of their whole asset. A large number of policies are issued during the closing period of the financial year, and credit is taken in the revenue account for the premiums due on such policies. The extent of such premiums, which are recovered subsequent to the closing date, are taken as outstanding premiums. In the same way interest receivable on investments before the closing of the financial year but realised later is taken as outstanding interest. The interest on Government securities and debentures and mortgage loans fall due on fixed dates. The interest accrued up to the day of closing of the accounting year is taken as an asset.

The item "deposits, cash and stamps" showed a total value of Rs. 2,08,09,000 in 1935. Deposits only amounted to Rs. 1,73,88,000. The balance was in cash and stamps.

The item under "land and house property" had a value of Rs. 2,38,73,000 in 1935. Many companies invested considerable sums in their head office and branch office buildings. Where companies require a large part of the space for its own use, it may acquire property, but otherwise opinions sharply differ on the question of life fund investments in real estates. Real estates which come into their possession in satisfaction of legal rights, as by the foreclosure of mortgages, should not be retained for long. They should be disposed of as early as possible. In this connection it is interesting to observe that the "Oriental" follows the practice of having its Head Office and branch offices housed in its own buildings, but eschews mortgage loans. On the other hand, the "Hindustan Co-operative" has land and house property worth Rs. 47,48,000 and also invests in mortgages on property to the extent of Rs. 67,87,000. The assets of the Oriental and the Hindustan

Co-operative amount to Rs. 17,62,73,000 and Rs. 1,98,59,000 respectively.[1]

Money advanced on mortgage satisfies the requirements of security and yield, and can very well be distributed geographically. Although such loans are not readily convertible, they are entirely suitable for investment of a substantial proportion of the life fund. Debentures are also mortgages, a direct result of public issue by big firms, which would have taken a private loan. But debentures being easily marketable securities, are generally preferred to mortgages. Discussing the problem of investment in debentures, Mr. W. T. May makes the following interesting comment[2]:

> ". . . . in considering the investment in debentures it is very important not only to consider the property on which the debentures are secured, but also the form of the charge. A debenture-holder is in a very much better position if he has a mortgage on a specific block of property than if he has a floating charge on an undertaking. In either case he is very much in a better position if anything goes wrong, than a preference share holder, but if he has a fixed charge on a valuable property, he is in a very secure position indeed. A debenture-holder with a floating charge until he steps in and appoints a receiver cannot interfere with the working of the undertaking and debts are often accumulated in the course of business which weaken his security."

Choice between Mortgage Loans and Security Holdings. A directly secured loan to a municipality or an institution maintains its face value for valuation purposes regardless of fluctuations in the current rate of interest, till the borrower makes a definite default. But the market value of debentures issued by the same borrower are highly sensitive to movements in interest rates and to changes in the reputation of the borrower. These fluctuations often raise awkward problems of valuation. Another peculiar problem of investment is presented by the fact that bonds which do not usually have a good market, fall less in price in depressions than others which are freely and widely bought and sold and which are, therefore, more sensitive to changes in market conditions.

Investments in ordinary shares of companies are fundamentally wrong in principle, in spite of the fact that common stocks were often bought to yield quite a low rate at the time of purchase, but

1 The above figures are taken from the Indian Insurance Year Book, 1936.

2 "Insurance and Banking Investments", W. T. May, F.I.A., *Journal of. C. I. I.*, Vol. 34 (1931).

the appreciation was so great that when sold the total yield in interest and appreciation together have given a very high return on the investments. Some companies specialise in this type of investment. The National Insurance Company of Calcutta and the Bharat Insurance Company of Lahore had in their investment folios Rs. 98,49,000 and Rs. 69,58,000 worth respectively of shares in Indian companies in 1935. But the reason for opposing investment in shares is that if the stock-holdings were small, the investment was at the mercy of the majority of the stock-holders, while if the stock investments were larger there was a temptation to secure full control, with the result that the company purchasing stock was thus led into active participation in enterprises quite foreign to the purpose for which it was chartered.

Loans on policies within their surrender values are safe and sound investment, and form about 10 per cent. of the assets of an average company. The benefit under the automatic extension clause permits the continuance of the policy, on which surrender value has accrued, up to the full face value of the policy even though the premiums are not paid on due dates. The office advances the premium as and when it falls due up to the extent of the surrender value available, without any request on the part of the policy-holder, such advances being treated as loans repayable with interest. These are included in the above percentage. During trade depressions and crises, we have already seen that there is a sudden increase in demand for loans and this may give rise to awkward situations. Such crises actually happened in America during the last world economic depression.

Items under "loans on stocks and shares, etc." generally appear blank in the balance-sheets, and rightly so. The business of advancing loans on stocks and securities primarily belongs to banks or exchange houses. It cannot be indiscriminately practised by insurance companies. It is to be hoped that such investments where they do exist are of a temporary nature and are taken up only as special cases. The control of insurance funds by the proprietors should be guided by the trust placed by policyholders in them, and any investment, howsoever lucrative, which may give rise to doubts as to the *bona fide* intentions of the management, should always be avoided. Formerly insurance funds were employed in underwriting

new issues; but they are totally eschewed now. In America they have been rightly prohibited by law.

Indian Government securities get the first place of preference in the estimation of insurance offices and in 1935 amounted to Rs. 23,07,35,000 out of the total assets of Rs. 45,80,09,000. The British, Colonial and foreign Government securities show a total of Rs. 61,23,000 in the same year, while the securities of Indian States totalled Rs. 22,24,000.

Municipal, Port and Improvement Trust securities are a popular form of investment and amounted to Rs. 4,66,91,000 in 1935. The money so raised by these semi-Government public bodies is utilised productively and goes to increase the national wealth of the country, which gives impetus to new business.

The proportions of investments that finally appear on the assets side of a life assurance company take their final form due to legal restrictions imposed by the Government of the country in which the business is carried on. The objects of legal regulations are:

1. To ensure soundness and to prevent speculation, as by laws prohibiting or restricting investments in stocks and real estates.
2. To eliminate improper practice as by laws prohibiting underwriting operations or restricting insurance companies to their particular field of operation.
3. To secure the investments of life insurance funds in directions favoured by the policy of State Legislatures.

Nobody is in disagreement with the first object, but how far it is achieved by prohibiting investments in stocks and shares and in buildings may be debatable. In this connection, the remarks already made in connection with the suitability of the above investments for life fund must be borne in mind. The investments are made by the directors on behalf of the company. These gentlemen are usually experienced business magnates and understand the relative merits of different types of investments, and in the selection they are invariably advised by insurance company managers who know the exact needs of the business.

We have discussed the various principles of investments and to illustrate certain aspects of investments of Indian companies we have so far taken the figures from the Indian Insurance Year Books, particularly for the year 1935. These figures, however, relate to the total assets of all the Indian companies comprising the following three classes:

1. Companies doing general insurance business (fire, marine and general accident businesses) exclusively.
2. Companies doing life business exclusively.
3. Composite companies doing life and general businesses.

But the problems that are to be considered in the investments of life funds are quite different from the considerations kept in view at the time of investing other types of insurance funds relating to fire, marine, motor and general accident businesses. Hence the inclusion of investments relating to other insurance funds certainly influences the proportions of different types of assets in favour of one type of investment or against another and, therefore, does not give a correct perspective of the problems that face the investments of life funds and life offices generally.

During the period 1912 to 1927 a few of the Indian life assurance companies transacted other classes of insurance business (such as sum assured payable at the time of *upanayana*, marriage, etc., and fidelity guarantee, annuity business, etc.). At that time the total of such "other insurance funds" of the companies never exceeded 7 lakhs of rupees. In the attached statement (A) we have shown the total assets of all the companies as shown in the Insurance Year Books to be the total assets of life offices.

STATEMENT A

Analysis of Assets of Indian Life Insurance Companies during the Years 1913-27

Year	No. of companies	Mortgages on property in India	Loans on policies within their surrender value	Loans on personal security	India Government securities	British, Colonial and foreign Government securities	Port Trust, Improvement Trust and Municipal securities	Shares in Indian companies	Land and house property
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1913*	50	..	..	..	..	..	..	..	..
1914	44	13,00,000	37,00,000	5,00,000	4,01,00,000	1,00,000	1,09,00,000	12,00,000	37,00,000
1915	42	19,86,975	47,15,027	2,87,843	4,72,43,406	1,00,000	1,25,20,018	12,95,078	41,66,963
1916	44	24,77,780	55,32,907	2,52,712	5,00,29,709	..	1,33,46,728	15,70,571	43,40,719
1917	41	29,91,632	68,50,702	1,99,492	5,61,36,544	..	1,44,76,983	18,97,939	51,08,671
1918	43	14,38,816	73,07,171	2,30,657	5,39,23,188	..	1,38,76,338	15,13,204	57,18,260
1919	42	21,67,104	75,86,813	3,67,101	5,86,22,144	..	1,43,74,711	23,91,911	63,27,244
1920	43	32,08,061	80,91,764	9,07,761	6,24,40,322	..	1,50,28,685	21,68,469	62,24,447
1921	45	36,00,143	80,78,314	18,20,025	6,39,13,098	..	1,53,86,686	16,91,186	62,23,487
1922	48	37,27,838	84,33,712	15,66,268	6,95,32,179	..	1,57,91,956	26,47,480	70,43,724
1923	46	57,44,120	91,10,533	21,49,203	7,34,51,127	..	1,68,63,432	28,42,434	74,35,378
1924	48	68,62,287	1,00,54,584	24,73,561	8,03,70,810	..	1,74,98,524	26,49,960	75,85,253
1925	49	69,45,011	1,12,05,406	13,90,543	7,94,90,077	..	2,56,75,430	49,53,153	82,25,693
1926	51	78,31,696	1,23,28,017	12,96,484	8,58,67,941	..	2,82,94,457	57,26,824	89,43,075
1927	56	86,90,812	1,40,45,232	12,91,616	9,24,70,379	..	3,16,25,840	66,35,575	1,01,77,069

STATEMENT A—*contd.*

Year	No. of companies	Agents' balances outstanding	Accrued interest	Deposit, cash, stamp, etc.	Furniture, stationery, etc.	Miscellaneous	Preliminary and organisational expenses, deficits, etc.	Total assets
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1913*	50	..	..	..	..	..	..	6,00,00,000
1914	44	21,00,000	6,00,000	17,00,000	2,00,000	2,00,000	15,00,000	6,78,00,000
1915	42	20,01,245	7,07,367	15,38,418	2,13,563	6,12,708	15,82,569	7,89,74,180
1916	44	19,08,115	7,99,595	21,38,091	1,93,101	7,00,797	16,01,858	8,48,92,683
1917	41	14,24,325	9,56,247	23,53,485	2,34,951	2,03,462	15,32,332	9,43,66,765
1918	43	15,29,343	10,15,612	28,91,523	2,41,231	7,31,175	14,54,664	9,18,71,682
1919	42	16,28,584	11,30,097	17,01,956	2,43,245	2,18,451	14,22,516	9,81,81,877
1920	43	19,33,368	12,56,409	27,32,776	2,96,177	3,91,279	9,13,114	10,55,92,552
1921	45	21,70,849	13,39,949	24,45,680	3,66,710	5,78,534	11,75,143	10,87,80,804
1922	48	28,48,306	9,67,046	26,98,895	3,73,951	5,06,035	14,91,575	11,76,28,965
1923	46	32,84,929	10,10,632	27,10,409	3,70,521	2,75,525	18,07,448	12,70,55,691
1924	48	32,78,777	11,56,768	28,70,687	3,53,134	5,38,537	17,19,947	13,74,12,829
1925	49	39,54,697	9,64,787	31,70,684	4,27,658	4,02,138	17,52,640	14,85,58,117
1926	51	44,50,489	9,91,247	36,16,538	4,82,266	5,96,517	18,18,679	16,22,44,230
1927	56	50,04,858	11,40,423	38,67,432	5,78,906	4,88,752	12,87,698	17,73,04,592

* No consolidated statement given. In the next year's report the following reference has been made:—"The total assets of Indian companies increased during the year by over two-thirds of a crore, and now amount to nearly 6⅔ crores." On this assumption the total asset was approximately Rs. 6,00,00,000.

From the year 1928 the position changed. The total of "other insurance funds" makes a sudden jump and amounts to over Rs. 102 lakhs, finally reaching the figure of over Rs. 148 lakhs in 1937. This is due to the inclusion of assets of particularly two composite companies which were writing general insurance business since the year 1919, and were not subject to the 1912 Act as they did not write life assurance business. They became subject to Act XX of 1928. Incidentally, it may be mentioned that they commenced life business in 1929. The corresponding figures of the insurance funds of companies which exclusively transact general insurance business amounted to Rs. 38,40,000 and Rs. 53,38,000 respectively for the years 1928 and 1937.[1] In the attached statement (B) we have deducted the relative items of assets of those companies which exclusively transact general business from the respective totals relating to the Indian companies. It is, however, not possible to deduct the assets of other insurance funds of the composite companies. As the share of the other insurance funds of such companies increased very substantially from a total of about Rs. 75 lakhs to about one crore of rupees during the same period the following remarks should be remembered in observing the trend of the investment of the life fund and life offices in general.

The contracts in general insurance business are usually for a term of one year only and, as has already been stated, the funds that are created (except the portion for outstanding liabilities) are the result of a desire to afford further security. Nevertheless, the chances of a substantial loss of such business in any particular year are always present and in the circumstances the funds are invested mainly in Stock Exchange or other easily realisable securities. From a casual analysis of the assets of companies which exclusively transact general insurance business,[2] we observe the following:

1. The mortgages of properties and loans on stocks and shares and on personal securities are either absent or only nominal.

[1] For total life funds and other funds of Indian insurance companies, see Appendix V.

[2] See Appendix VI.

STATEMENT B

Analysis of Assets of Indian Life Insurance Companies (excluding those which do General Insurance Business Exclusively) during the Years 1928-38

(In thousands of rupees)

Year	No. of companies	Mortgages on properties in India	Loans on policies within their surrender value	Loans on stocks and shares and on personal security	India Government securities and Indian State securities	British, Colonial and foreign Government securities	Port Trust, Improvement Trust and Municipal securities	Shares in Indian companies
1928	61	91,89	1,59,00	22,79	11,32,83	43,83	3,52,46	74,26
1929	62	92,70	1,83,43	41,70	12,27,47	52,16	3,59,74	79,89
1930	68	94,86	2,15,14	22,52	10,61,63	3,48,99	3,81,99	70,43
1931	82	1,04,66	2,62,63	29,60	14,63,55	50,84	3,97,44	1,17,13
1932	94	1,18,16	3,06,53	37,02	15,35,29	53,84	4,44,52	1,29,68
1933	108	1,35,06	3,41,85	5,17	17,85,20	44,80	5,02,47	1,68,89
1934	135	1,58,44	3,71,87	17,39	20,21,96	46,26	5,09,04	2,18,31
1935	151	1,82,17	4,01,40	27,21	22,31,72	43,95	4,61,20	2,71,88
1936	166	1,94,89	4,40,37	13,95	25,04,07	28,83	4,85,42	3,27,02
1937	181	2,10,26	4,78,92	15,70	27,70,64	38,76	5,16,26	3,93,48
1938	187	2,03,56	5,48,24	16,93	31,46,31	36,02	5,39,84	4,21,95

STATEMENT B—*contd.*

(In thousands of rupees)

Year	No. of companies	Land and house property	Agents' balances outstanding	Accrued interest	Deposit, cash, stamp, etc.	Miscellaneous	Preliminary organisational expenses	Total assets
1928	61	1,18,17	66,27	24,10	71,11	9,98	12,64	21,79,33
1929	62	1,27,06	83,43	26,01	79,90	12,89	11,23	23,77,61
1930	68	1,35,15	88,71	8,54	70,31	39,11	11,26	25,48,64
1931	82	1,45,73	1,01,00	31,92	75,02	43,40	13,62	28,36,54
1932	94	1,59,14	1,21,17	30,95	1,09,46	56,15	16,79	31,18,70
1933	108	1,90,75	1,71,69	..	1,28,85	90,80	18,48	35,84,01
1934	135	2,18,08	1,91,74	..	1,46,30	95,42	25,10	40,19,91
1935	151	2,37,23	2,10,65	..	1,82,61	1,10,73	24,70	43,85,45
1936	166	2,89,05	1,75,01	43,68	1,92,60	98,77	28,40	48,22,06
1937	181	3,20,47	1,89,25	43,54	2,05,65	1,37,88	33,13	53,53,94
1938	187	3,85,19	2,15,57	44,17	2,16,31	1,45,64	38,66	59,58,39

2. The column under "loans on policies within their surrender values" from its very nature shows a *nil* balance.

3. The share of the India Government and Colonial, British and foreign Government securities form about 15 per cent. more of the total assets in each year than as shown in the attached statement (B) (*vide* page 108).

4. The "agents' balances, etc." column shows a higher figure by about 5 per cent. each year and the "miscellaneous assets" are higher by about 10 per cent.

We assume the above tendency will be present in the assets of the funds which we could not separate from the figures in the attached statement (B). But as the proportion of such funds to the life fund shows a gradual decrease from about 4½ per cent. to about 2½ per cent. due to the rapid increase of the life fund the influence due to its presence naturally will not be very marked, save in the case of Government securities (Indian, British, Colonial and foreign Government securities) which would otherwise form a smaller share to the total assets.

We shall now observe the tendencies disclosed in the relative items of investments of the Indian insurance companies as shown in the two statements.

The Stock Exchange securities form a very substantial portion of the total investments and amount to nearly 75 per cent. of the total assets. The India Government securities form a large share of such Stock Exchange securities and amount to about 80 per cent. of them up to the year 1924.

Port Trust, Improvement Trust and Municipal securities come to about 18 per cent. of the securities. In the three years 1925–27 the Port Trust, Improvement Trust, etc., securities show a steady increase and form about 24 per cent. The increase is entirely at the cost of Government of India securities.

Percentage Analysis of Assets of Indian Life Insurance Companies during the Years 1914 *to* 1938

Year	Mortgages on properties in India	Loans on policies within their surrender value	Loans on stocks and shares and on personal security	India Government securities and Indian State securities	British, Colonial and foreign Government securities	Port Trust, Improvement Trust and Municipal securities	Shares in Indian companies	Land and house property	Agents' balances outstanding	Accrued interest	Deposit, cash, stamps, etc., and furniture, stationery, etc.	Miscellaneous	Preliminary organisational expenses
1914	1.92	5.46	0.74	59.15	0.14	16.08	1.77	5.46	3.10	0.88	2.80	0.29	2.21
1915	2.52	5.97	0.38	59.82	0.13	15.85	1.64	5.27	2.53	0.89	2.22	0.77	2.00
1916	2.92	6.52	0.30	58.93	..	15.72	1.85	5.11	2.24	0.94	2.75	0.83	1.89
1917	3.17	7.26	0.21	59.50	..	15.34	2.01	5.41	1.51	1.01	2.73	0.22	1.62
1918	1.57	7.95	0.25	58.69	..	15.10	1.65	6.22	1.67	1.11	3.41	0.80	1.58
1919	2.21	7.73	0.37	59.71	..	14.64	2.44	6.44	1.66	1.15	1.98	0.22	1.45
1920	3.04	7.66	0.86	59.14	..	14.23	2.05	5.89	1.83	1.19	2.87	0.37	0.87
1921	3.31	7.42	1.67	58.75	..	14.15	1.56	5.72	1.99	1.23	2.59	0.53	1.08
1922	3.17	7.17	1.33	59.11	..	13.43	2.25	5.99	2.42	0.82	2.61	0.43	1.27
1923	4.52	7.17	1.69	57.81	..	13.27	2.24	5.85	2.59	0.80	2.42	0.22	1.42
1924	4.99	7.32	1.80	58.48	..	12.74	1.93	5.52	2.39	0.84	2.35	0.39	1.25
1925	4.67	7.54	0.94	53.51	..	17.28	3.34	5.54	2.66	0.65	2.42	0.27	1.18
1926	4.83	7.60	0.80	52.91	..	17.44	3.53	5.51	2.74	0.62	2.53	0.37	1.12
1927	4.90	7.92	0.73	52.15	..	17.84	3.74	5.74	2.82	0.64	2.51	0.28	0.73
1928	4.22	7.30	1.05	51.97	2.01	16.17	3.41	5.42	3.04	1.11	3.26	0.46	0.58
1929	3.90	7.71	1.75	51.64	2.19	15.14	3.36	5.34	3.51	1.09	3.36	0.54	0.47
1930	3.69	8.37	0.87	41.34	13.59	14.88	2.74	5.26	3.45	1.11	2.74	1.52	0.44
1931	3.69	9.26	1.04	51.61	1.79	14.01	4.13	5.14	3.56	1.12	2.64	1.53	0.48
1932	3.79	9.83	1.19	49.22	1.73	14.26	4.16	5.10	3.88	0.99	3.51	1.80	0.54
1933	3.77	9.54	0.14	49.81	1.25	14.02	4.71	5.32	4.79		3.60	2.53	0.52
1934	3.94	9.25	0.43	50.32	1.15	12.66	5.43	5.42	4.77		3.64	2.37	0.62
1935	4.15	9.15	0.62	50.91	1.00	10.52	6.20	5.41	4.80		4.16	2.52	0.56
1936	4.04	9.13	0.29	51.93	0.60	10.07	6.78	5.99	3.63	0.91	3.99	2.05	0.59
1937	3.93	8.94	0.29	51.74	0.72	9.64	7.35	5.98	3.53	0.81	3.84	2.57	0.62
1938	3.41	9.20	0.28	52.81	0.61	9.06	7.08	6.47	3.62	0.74	3.63	2.44	0.65

Shares of Indian companies do not exceed 3 per cent. of the investments in the early years. This item shows a slow but steady increase during these years reaching now as high as 10 per cent. of the total Stock Exchange securities and there is a marked decrease in the India Government and Port Trust, etc., securities, the decrease being more evident in the former case than the latter. The total Stock Exchange securities also show a steady decrease and now form about 70 per cent. only of the total assets.

Loans on policies within their surrender value increased from 5.46 per cent. in 1914 to 7.95 per cent. in 1918. Thereafter there is a gradual decline but they always remained higher than 7 per cent.

As has been observed already, the mortgages on property in India have been eschewed by the Indian companies except a few of them that specialise in this form of investment. It is, therefore, no wonder that such investments form a small proportion, and at no time exceeded 5 per cent. Nevertheless, the trend is obvious and this form of investment is slightly increasing in favour. The investments on companies' own land and house property form a little more than 5 per cent. of the assets.

Agents' balances, outstanding premiums and outstanding interest, etc., fluctuated between 1.51 per cent. and 4.80 per cent. during the period 1914–38, the lowest in 1917 and the highest in 1935.

The items under the other heads individually form only a very meagre percentage of the total assets. The aggregate of these items amount to about 10 per cent. of the assets of each year.

The percentages keep us informed of the consistency and relative strength of specific investments in relation to the total assets but sometimes the trend may be better observed by noting how the excess funds for a number of years are invested. For this purpose we have compared the assets of the companies for the years 1936 and 1937 with those of 1928. The increase or decrease in the relative items and the assets have been shown in the attached statement.

Statement showing the Increase or Decrease in the Assets of Indian Life Insurance Companies, Compared to the year 1928

(In thousands of rupees)

	Increase or Decrease for			
	1936	%	1937	%
(1) Mortgages on properties in India	1,03,00	3.90	1,18,37	3.75
(2) Loans on policies within their surrender value	2,81,37	10.65	3,19,92	10.08
(3) Loans on stocks and shares and on personal security ..	—8,84	—0.33	—7,09	—0.22
(4) India Government securities and Indian State securities..	13,71,24	51.89	16,37,81	51.59
(5) British, Colonial and foreign Government securities ..	—15,00	—0.57	—5,07	—0.16
(6) Port Trust, Improvement Trust and Municipal securities ..	1,32,96	5.03	1,63,80	5.16
(7) Shares in Indian companies ..	2,52,76	9.56	3,19,22	10.05
(8) Land and house property ..	1,70,88	6.46	2,02,30	6.37
(9) Agents' balances outstanding..	1,08,74	4.11	1,22,98	3.87
(10) Accrued interest	19,58	0.74	19,44	0.61
(11) Deposit, cash, stamp, etc. ..	1,21,49	4.60	1,34,54	4.24
(12) Miscellaneous	88,79	3.36	1,27,90	4.03
(13) Preliminary organisational expenses	15,76	0.60	20,49	0.65
(14) Total assets	26,42,73	100.00	31,74,61	100.00

The India Government securities form about 52 per cent. of such investments, amounting to Rs. 13,71,24,000 in 1936 and Rs. 16,37,81,000 in 1937. The shares of Indian companies increased from just over 9.5 per cent. to over 10 per cent. and the amount comes to Rs. 2,52,76,000 in 1936 and Rs. 3,19,22,000 in 1937. The Port Trust, etc., securities form just over 5 per cent. of the investments and the loans on policies within their surrender value amount to just over 10 per cent. The land and house property item has remained steady at about 6.4 per cent. and the mortgages on property in India show a slight decrease from about 3.9 per cent. to 3.7 per cent.

The above trend has been observed from the consolidated yearly statement of the assets of all the companies. These include a few companies, who due to their large volume of assets and marked preference for certain particular types of investments unduly

influence the general ratio of the assets of all the companies. To exemplify this, we have taken out the figures of one company, viz., the Oriental, from the list against Stock Exchange securities for the year 1937. It will be interesting to observe the effect of this upon the ratio maintained by the other companies.

Year 1937

Stock Exchange securities	All companies as per separate statement	Exclusive of Oriental Life Office
	%	%
India Government securities ..	51.74	35.00
Port Trust, etc., securities	9.64	12.20
Shares of Indian companies	7.35	12.50

In this connection we have also to point out that the column under India Government securities includes the sterling securities of the Government of India. A few companies have a substantial portion of their Stock Exchange securities in sterling investments. It is, however, very unlikely that their liability to policyholders payable in sterling are of such magnitude as to necessitate keeping so much of their investments in sterling. The only other attraction can be their yield. It would, no doubt, be desirable if, under the new Act, the amount of such investments of the companies were shown separately. This will at least enable the public to know the extent of the external liability of the India Government that is under Indian control. The Reserve Bank of India recently issued a memorandum on this point stating how such external liabilities could be liquidated. The Indian companies can play their part in liquidating such debts.[1]

Section 27(*a*) of the Insurance Act 1938 states that the investments of assets of the British Indian companies shall be not less than 25 per cent. of their liabilities in Government securities and a further sum equal to 30 per cent. of their liabilities in Government securities or other approved securities, or securities guaranteed as to principal and interest by the Government of the United Kingdom.

Before closing this chapter we append another statement showing the relative trends for the year 1937 of the companies

[1] Recently, the total terminable sterling securities of the India Government amounting to £90,000,000 have been liquidated. This reduces about one-third of India's total foreign liability amounting to £300,000,000 (February 1941).

which were started between the years 1921 and 1927. According to the new Act, these companies are treated as old companies and will be required to pay only a lower rate of commission for their new business.

Assets of Indian Insurance Companies established during the period 1921 *to* 1927 *for the year* 1937

(In thousands of rupees)

	Amount	%
(1) Mortgages on properties in India	33,35	17.43
(2) Loans on policies within their surrender value.	11,02	5.73
(3) Loans on stocks and shares and on personal security	2,70	1.40
(4) India Government securities and Indian State securities	55,52	28.85
(5) British, Colonial and foreign Government securities	..	..
(6) Port Trust, Improvement Trust and Municipal securities	1,36	0.71
(7) Shares in Indian companies	10,49	5.45
(8) Land and house property	23,99	12.47
(9) Agents' balances outstanding	10,78	5.60
(10) Accrued interest	96	0.50
(11) Deposit, cash, stamp, etc., and furniture, stationery, etc.	35,39	18.39
(12) Miscellaneous	6,30	3.27
(13) Preliminary organisational expenses	39	0.20
(14) Total assets	1,92,45	100.00
Life fund 1936	1,33,33	
1937	1,67,04	

Out of the total assets of Rs. 1,92,45,000 only a sum of Rs. 43,36,000 has been invested in India Government securities. This works out to a percentage of 23.52 on the total assets. The investment in Indian State securities amount to Rs. 12,16,000 and both taken together constitute only 28.85 per cent. of the total assets.

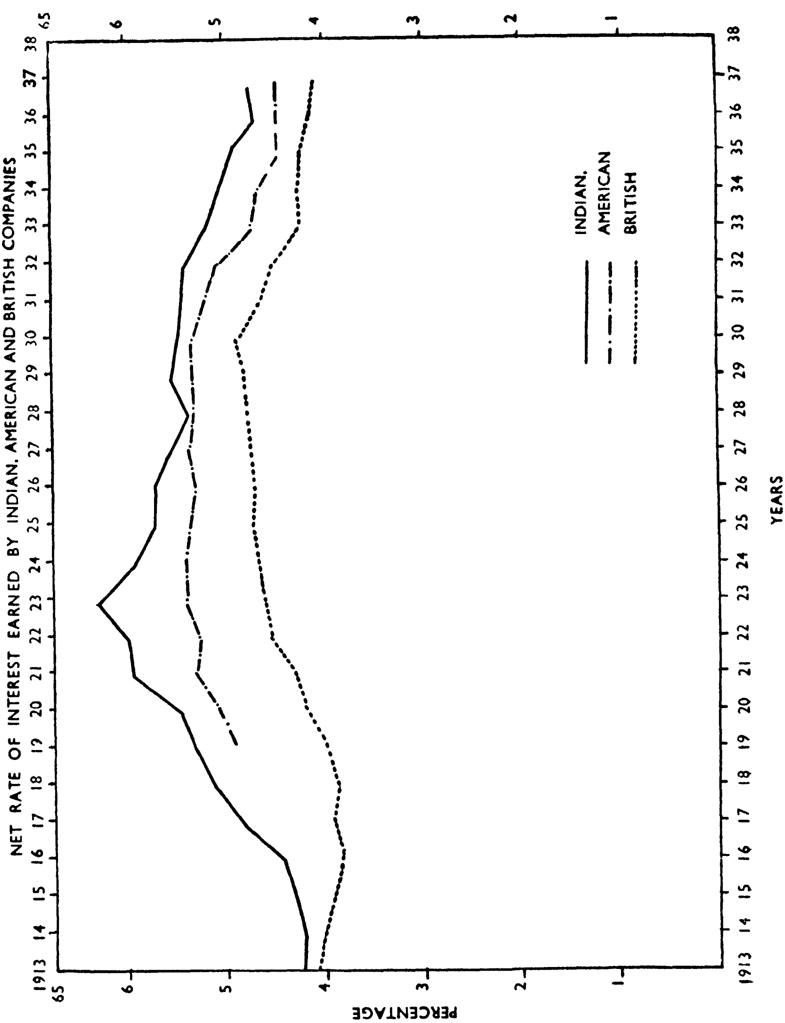
The mortgages on property work out to 17.43 per cent. and the loans on policies within their surrender value account for another 5.73 per cent. Shares in Indian companies constitute 5.45 per cent. and land and house property 12.47 per cent. The share of Port Trust, etc., securities is less than 1 per cent. and the total Stock Exchange securities amount to just over 35 per cent.

It will thus be obvious that to the added difficulties in the matter of obtaining fresh business in competition with other companies which are older and better established, for the same rate of commission to be offered, they will have to face difficulties in the matter of keeping their assets strictly in conformity with the requirements of the Insurance Act as envisaged by section 27(*a*) already referred to.

The total life fund of these companies amounted to Rs. 1,67,04,000 in the year 1937, and the Indian Government securities form less than 26 per cent. No doubt after deducting from the life fund the loans and other sums due to the companies, the Government securities will form a slightly higher percentage, and the companies be enabled to conform to the requirements so far as they relate to the India Government securities; yet the margin of safety against any untoward fluctuation in the value of the securities is rather narrow. The life fund in 1937 increased by Rs. 33,71,000 from the previous year's total, and we can expect that in normal years about this amount will be available for further investments. Within the period allowed for compliance with the Act, a large proportion of this available fund will necessarily have to be invested in Government and other approved securities. The loans will also increase and the amount required will go to decrease the proportion necessary for investment in Government and approved securities. The balance of the fund available will be inversely proportionate to the amount of the new loans granted, and in the event of the companies being compelled by force of circumstances to grant a considerable portion of this increased fund as loans then they will find it difficult to keep up the proportion under the different heads of assets and be able to comply with the requirements of the Act. In this connection we should not lose sight of the fact that the policyholders have a right to call for loans whenever they like, subject, of course, to certain restrictions, and ordinarily the demand for loans increases during periods of economic stress, which will coincide with the fall in value of Government securities. This problem requires further examination in the light of experience and it may be necessary to grant some relief under the Insurance Act so as to mitigate hardships of such companies.[1]

[1] The Government of India has recently (14th February 1941) amended the Insurance Act granting relief to younger life insurance companies regarding the payment of compulsory deposits.

It is necessary to keep in view all the considerations enumerated above in order to safeguard the capital and obtain as high a rate of interest as possible. The attached graph shows the net rate of interest earned by Indian insurance companies as well as English and American companies.[1] It will be seen that the Indian companies invariably earn more interest than any of the foreign companies mentioned. New companies base their assumption of



1 See Appendix VII.

future interest yield on the experience of these rates realised by companies in the respective countries. Every company assumes at least 1 per cent. less than such rates and sometimes this margin of safety is further increased in view of uncertainties that portend in the future. It should be remembered that the lower the rate of interest the higher the premium will be, other considerations remaining unchanged.

In the next chapter we will enlarge upon this aspect as also the effects of changing conditions on other factors of premium.

CHAPTER VII

The Factors of Premium and Loading Calculation —Effect of Changing Conditions on Premiums

We have already seen in our discussion in the chapter on "Principle of Insurance" that the premiums are determined by the following three factors:

1. Mortality,
2. Interest, and
3. Loading.

We have discussed at some length the first two factors in the preceding chapter. We now proceed to deal with the remaining factor, viz., loading.

Loading is the addition made to the net premiums based on mortality and interest rate assumed to arrive at the gross or the office premium. It consists of the amounts necessary

(1) to meet the expenses of obtaining and administering the business,

(2) to make provision for profits for Participating policies, and

(3) to provide margin for fluctuations in the rate of mortality and interest (unless already specially provided for) and any allowance for simple profit.

Formerly the loadings for expenses of management, commission and profits used to be expressed as a percentage of the pure premium. About the year 1850, however, it began to be recognised that the loading for expenses of management (apart from commission) was not measured accurately by a percentage on the premium, and should have some relationship with the actual expenditure incurred in relation to a particular policy.[1] The office cost of preparing and issuing two policies of Rs. 1,000 and Rs. 15,000 is practically the same. The medical fees paid in the second case do not usually exceed twice the amount paid for the first policy. Of course, the commission usually varies in direct proportion to the sum assured

[1] Life Assurance Text Book by R. C. Simmonds, page 82.

and in some cases may be more than that. It was, however, not practicable to adopt the more nearly equitable method of making an equal charge on each policy (of whatever amount) since this would impose a prohibitive burden on small policies which form a large bulk of the business. Therefore, it was suggested that the addition be made by way of a percentage on the sum assured instead of on the premium.

Commission payable in those days was a uniform percentage of each premium, including the first, and the loading for that item was taken as 5 per cent. of the office premium. The loading for profit was provided by calculating the pure or net premium at a rate of interest at least 1 per cent. lower than the average rate earned on the funds with a further loading of 5 per cent. on the office premium.

About the year 1870 changes in office practice occurred which affected the method of calculation of loading. Instead of allowing commission as a uniform percentage of each premium as previously, offices began to pay more on the first year's premium—a practice that has continued and developed ever since.

Also, as the With-profit policies were becoming very popular and various systems for distributing the profits were being adopted, loadings were altered to provide for them, and in some cases definite amounts of bonuses were calculated and provided for in the loading.

We know the factors that go in the calculation of premiums. However, attention has also to be paid to the rates of competing offices, but this does not mean that actuarial soundness is to be sacrificed because another office quotes a lower rate of premium. Further, before the rates are given out, it is important to see that premiums are smoothly graduated from age to age.

In the year 1869, publication of the Select Mortality Table and changes in the factors of loading, already referred to, led to a more detailed and scientific method of constructing office premium in England. Dr. Sprague, the author of the Select Table, suggested formulas for calculating premiums for Non-participating and Participating Whole Life policies. He based his calculations on his Select Mortality Table and assumed 4 per cent. rate of

interest to arrive at the net premium. He assumed the initial commission at 1 per cent. of sum assured and renewal commission 2½ per cent. of premium.

In 1892 Mr. H. J. Rothery suggested a formula[1] in which the provision for loading was made upon a different basis. He said:

> "The commission payable and some of the other charges are now generally calculated upon the sum assured rather than upon the amount of premium payable. The commission is frequently 1 per cent. upon the sum assured, the stamp duty and the medical fees partially depend upon the amount of policy and the branch office expenses are implicitly if not explicitly regulated in the same manner. On the other hand, the amount of the first premium does have some influence upon the expenditure."

He, therefore, suggested the following loadings:—

1. In respect of the first premium, 2 per cent. upon the sum assured and 5 per cent. upon the gross premium.
2. In respect of each premium including the first, 8 per cent. upon the gross premium. The total loading, therefore, amounted to 2 per cent. on the sum assured, 13 per cent. on the first premium and 8 per cent. upon the renewals.[2]

Since the above development, new mortality data became available at the close of the nineteenth century, the rate of interest fell continuously for a long time and the pressure of initial expenditure intensified. In view of the above, Mr. Andras suggested a modification of Dr. Sprague's formula by increasing the loading for initial expenses from 1 per 100 to 2 per 100 sum assured and adopting $O^{[M]}$ Mortality Table and employing a 3½ per cent. rate of interest.

The present tendency in India is to pay commission on the premiums received and to measure the expenses in percentage terms to the premium. Consequently, the above formulas so far referred to do not exactly fit in, for, therein the assumption is that the initial expense is a percentage of the sum assured. The treatment of this subject is intricate and abstract and, therefore, not dwelt upon here.

1 *J. I. A.*, Vol. XXX, page 135.

2 It may incidentally be mentioned here that upon an average annual premium of £3 per cent., this amounts to 80 per cent. of the first premium and 8 per cent. on renewals.

Offices which have any or all of the following special favourable circumstances in relation to

(1) safe and sound investments yielding a high rate of interest,
(2) selection of lives leading to light mortality, or economic management, etc.,

can afford to charge rates of premium substantially below the average and yet produce satisfactory bonus. To such cases ordinary formulas do not apply without modification.

Endowment assurances form the bulk of life insurance business these days. By its very nature, i.e., due to limited duration, they yield small mortality profit. But this is counterbalanced by the interest profit on the large reserves necessary for such business. This is true for the offices which charge average premiums for each class of policy and earn a satisfactory rate of interest. Assuming to hold these conditions good, office premiums for Participating Endowment assurances can be calculated on the same mortality basis and interest basis with similar loading for expenses and profits as for Whole Life With-profit policies and it will be justifiable to declare the same rate of bonus in each class.

We have so far confined our attention to bonus loading in relation to simple or compound system. Some offices adopt special systems such as "contribution" method. In calculating premiums for them the bonus loading for the working formula should be replaced by an appropriate modification of the loading. In India all the indigenous companies adopt the system of simple reversionary bonus and only of late one company of Madras has adopted a modified form of compound reversionary bonus system.[1]

We will now consider the effect of changing conditions on life assurance premium.

We have already enumerated the factors on which premiums are calculated. We will take them singly and note the effect of changing conditions on each and its consequent effect on the premiums.

Mortality. It is undoubtedly a fact that mortality in our country is becoming lighter.[2] But as premiums in our country are

[1] United India Life Assurance Co., Ltd., valuation for quinquennium ending 1931.
[2] See chapter on "Mortality."

calculated on the basis of old mortality tables such as H^M or O^M with usually a few years' loadings the full effect of the present lighter mortality is not shown in the premiums. We have emphasised the need for a comprehensive mortality survey of Indian assured lives of the Indian companies. The reason is simple but at the same time important. When selecting a mortality basis for life premiums, it is necessary to consider whether the persons to whom the premiums are to be applied are likely to be similar in type to those who formed the data for the standard mortality table chosen. The comparison does not end here but extends to the periods of time also. If we refer to the following table we will see a large fall in the mortality amongst assured lives of English companies for the periods of —/1863 and 1924-29.

Rate of Mortality per cent. per annum

Age	(1) H^M pre-1863	(2) $A^{24\text{-}29}$ 1924-29
20	.63	.24
30	.77	.24
40	1.03	.39
50	1.60	.76
60	2.97	1.97

It is true that over a long period the rate of mortality has been falling in India also,[1] but the fall has not been uninterrupted. The plague epidemic at the close of the nineteenth century and the virulent influenza epidemic that followed the Great War killed a vast number of people. The influenza epidemic alone accounted for over sixty lakhs of people. The natural effect of the lighter mortality should be a reduction of the premiums and this has been achieved more equitably in England than in India for the reason already emphasised—namely, the absence of any comprehensive mortality experience in our country.

The compilation of an extensive mortality experience will not cure all evils. We are offering to guarantee benefits of the sum assured, the payment of which may be required at any time over the next several years, relying upon an actual mortality that shall not be worse off than the assumed table. But the question is whether our hopes will be realised. There is the possibility of a world war

1 See chapter on "Mortality."

quite devastating in nature.[1] The risks associated with aviation are covered with a slight extra and in some cases it is waived if the proponent has no intention to take up aviation as a career at the time of effecting a policy. The struggle for business has led to simplification of forms and queries and fail in strictness of medical examination, which may result in acceptance of undesirable lives. Further, the general conditions of the twentieth-century life may produce causes of mortality (such as heart failure, blood pressure, diabetes, etc.) which may have operated but rarely in the past. It is not being suggested here that each or all of them will come to pass or that they will outweigh the other desirable forces tending to decline the mortality rates, but that the above should always be kept in view while constructing premiums.

Interest. Interest plays an important part in determining the amount of premium. The benefit of compound interest earned on the reserves accumulated against a policy is passed on to the policyholder in the shape of charging him reduced premium from the commencement. It is, therefore, necessary to weigh carefully all factors pertaining to interest before calculating any premiums based on that. We have already discussed in a previous chapter the problem of investment of life funds, and have observed that the trend of interest rate has not been uniform. Low levels have been touched and this has to be taken into account, for, when we speak of interest in relation to life assurance premium, our concern should be the rate of interest to be obtained upon the future investment of money, unless, of course, the policy of a running office is dictated to take advantage of the current yield on the funds already accumulated. In instances, where it is felt that the rate of interest has temporarily fallen, the rate of premiums need not be altered. It should, however, always be borne in mind that the rate of interest assumed in the calculation of premium should always be the net rate available after deducting all costs on investments, realisation of dividends, and provision for income-tax.

The fall in interest rate has been so acute on occasions and its importance so great in the calculation of premiums that speculation has been made whether the business of insurance as such could be carried on if interest ceased altogether. We believe

[1] We are now witnessing such devastation in Europe and in China, and every day the war is drawing nearer to India.

that the inherent basic principle of mutual help and sharing each other's misfortune is so firmly rooted in the human consciousness that the business of insurance will be carried on even if no interest is earned on the funds. It is interesting to quote a few net premiums which were prepared by an actuary based on H^M basis, interest assumption being *nil.*[1]

Age	H^M O p.c.
20	2.35
30	2.84
40	3.58
50	4.80
60	6.98

The above figures naturally have no value as interest will certainly not vanish. We will now observe the effect of changes in the net premiums based on a common mortality table and by assuming different rates of interest.

Net Annual Premium for Ordinary Whole Life Assurance of 100
(H^M *Table*)

Age	Interest per annum				
	2½%	3%	3½%	4%	4½%
20	1.53	1.42	1.32	1.24	1.16
30	2.00	1.87	1.76	1.66	1.57
40	2.72	2.59	2.46	2.35	2.25
50	3.95	3.81	3.68	3.55	3.43
60	6.14	6.00	5.86	5.72	5.60

From the above, we see that the premium calculated at 2½ per cent. at age 20 is about 30 per cent. greater than at 4½ per cent. calculated at the same age while the percentage increase of the premium at age 60 calculated at 2½ per cent. over 4½ per cent. is only about 10 per cent.

1 "The Effects of Changing Conditions on Life Assurance Premiums" by R. C. Simmonds (*Insurance World*, November 1936).

We will now observe the changes on the basis of a different mortality table, $A^{24-29.}$

Net Annual Premium for Ordinary Whole Life Assurance of 100
(*Table A^{24-29}*)

Age	2½%	3%	3½%	4%	4½%
20	1.10	.98	.87	.78	.70
30	1.50	1.36	1.24	1.13	1.04
40	2.15	2.00	1.87	1.74	1.63
50	3.25	3.10	2.95	2.82	2.69
60	5.25	5.00	4.94	4.80	4.66

Here we see that the percentage increase in premium at age 20 calculated on the basis of 4½ per cent. and 2½ per cent. is nearly 60 per cent., while at age 60 it is 12½ per cent. Two conclusions can be drawn from the above two sets of figures.

(1) That the effect in the change of rate of interest is relatively much more important as the term of assurance is increased, the reason being that the element of compound interest has more time over which to operate, and

(2) that changes in rates of interest produce varying results with different mortality tables.

Loading. We will now note the effect of changes in the loading on the premiums. We have already discussed at some length the factors that compose the loading and now we shall note the changes that may occur in them in the light of prevailing conditions. The method of remunerating the agents varies with different companies, and has been varying from time to time. Firstly, the payment used to be made on the basis of fixed percentage of the sum assured for the first year and the renewal commission as a percentage of the premium. The above method has more or less universally given way to the present system of a variable large proportion of the premium (depending upon the class of business on which premium is paid and the amount thereof) for the first year and a reduced fixed percentage for the renewal commission. Some companies used to offer 10 per cent. for the second year, 7½ per cent. for the third year and the universally accepted renewal commission of 5 per cent. thereafter. But since the enforcement of the Insurance Act on 1st July 1939 the renewal commission has been restricted to 5 per cent. for all companies except those that are established for less than ten years, in which case the commission has been allowed to be 6 per

cent. only. The first year's commission has similarly been restricted to 40 and 55 per cent. for old and young companies. The above restrictions, however, do not apply to business secured before January 1937 and the renewal commission is payable at a rate agreed upon before the 27th of January 1937. Now that the maximum commission is limited, the problem of providing for it in the premium will not be a continual source of worry, and the incidence can be spread over in the calculation of the premium in such a manner that in case of surrender or early lapse of policy the company may not be at a loss.[1]

Now coming down to the question of expenses, we find expenditure on items such as salaries, rents, receipt stamps, stationery, etc., is growing more. On the other hand, mechanisation of offices is proceeding at a fast rate which obviates routine labour and helps to reduce the growing cost of these items. Further, due to the greater appreciation of the benefits of life insurance and the necessity of having larger insurance cover to provide purchasing power to maintain a given standard for the dependents, business has been increasing rapidly. The total effect has been that the proportion of premiums required for expenses has not varied very much from what it used to be. The following figures speak for themselves.

Statement of Expenses of Management in Relation to each Rs. 100 *of Income of Indian Insurance Companies*

Year	Expenses	Year	Expenses
1920	20.1	1927	20.1
1921	19.5	1928	24.2
1922	20.1	1929	24.0
1923	19.6	1930	23.3
1924	20.0	1931	22.7
1925	21.1	1932	21.6
1926	21.7	1933	21.4

Coming now to the question of bonuses in relation to premium, we should recall that the system originated in accidentally charging excess premium due to adoption of tables which indicated a heavy mortality. The system of bonus has now come to stay and forms a useful part of our assurance system. Different methods are adopted to distribute the surplus, the purpose of each method being a

[1] The total expenses of management and procuration cost of the business do not seem to have been reduced. This is because the companies are spending indirectly what they save through the limitation of commission.

varying degree of combination of expediency and equity to those from whom profits are derived. In India, Simple Reversionary bonus system holds the field. The premiums have to be calculated with a reasonable regard to a general level of bonus and its incidence amongst the different classes of policies. We may add here that to provide for a Rs. 10 per Rs. 1,000 simple reversionary bonus for a Whole Life policy a provision for approximately Rs. 13 per Rs. 1,000 has to be made in the premium so as to include shareholders' share and the income-tax payable. The value of provision for bonus will also vary with the assumption of rate of interest and mortality table, as also the type and duration of a policy.

We will now try to consider briefly the combined effect upon life insurance premium of the various changes in its components. For this purpose we have taken the comparative rates of premium for the same types of policies of the same company charged by them at different periods of time. We have also found the sums assured which a premium of Rs. 100 would have purchased at these dates and the difference between the two.

TABLE I—MUTUAL COMPANY

Comparison of the Amounts of Insurance Purchasable for an Annual Premium of Rs. 100 *Whole Term With Profit for the Years* 1880 *and* 1939

Age	Rate of premium charged		Amount purchasable for an annual premium of Rs. 100		Differ-ence	Per-centage
	1880	1939	1880	1939		
	Rs. a.	Rs. a.	Rs.	Rs.	Rs.	
20	25 0	23 5	4,000	4,289	289	7.22
22	26 0	24 8	3,846	4,082	236	6.14
24	27 0	25 12	3,704	3,883	179	4.83
25	27 8	26 7	3,636	3,783	147	4.04
26	28 0	27 2	3,571	3,687	116	3.25
28	29 0	28 11	3,448	3,486	38	1.10
30	30 4	30 6	3,306	3,292	— 14	—0.42
32	31 12	32 5	3,150	3,095	— 55	—1.74
34	33 4	34 6	3,007	2,909	— 98	—3.26
35	34 0	35 8	2,941	2,817	—124	—4.22
36	34 12	36 11	2,878	2,726	—152	—5.28
38	36 8	39 5	2,740	2,544	—196	—7.15
40	38 8	42 7	2,597	2,356	—241	—9.28
42	40 12	45 13	2,454	2,183	—271	—11.04
44	43 4	49 5	2,312	2,028	—284	—12.28
45	44 8	51 4	2,247	1,951	—296	—13.19

Table I represents the comparative premium rates of a mutual company for a Whole Term With-profit policy of Rs. 1,000 about the year 1880 and to-day. We observe that the excess sum assured which can be purchased at present amounts to 7.22 per cent. at age 20 and this gradually decreases to 1.10 per cent. at age 28. From age 30 the present rates of premium show increase over the old rates and the difference continually increases till at age 45 we find that at the present rate of premium the sum assured obtained by payment of Rs. 100 falls short by 13.19 per cent. of what would have been obtainable at the earlier date.

Table II makes similar comparisons for Whole Life With and Without Profit policies at two dates, of a leading proprietary company. The premiums payable under the Whole Life policies for 1939 are not for Whole Life policies in the strictest sense. Here the payment of premiums ceases at the age of 70 or death if previous and, therefore, it should be properly called Limited Payment Whole Life policy. The premiums payable under a Whole Life policy continue throughout the lifetime of the insured. For purposes of our comparison we have taken the premiums payable only up to the age of 30, and as such there will not be any appreciable difference in the rates of premium, although no doubt, these rates will be slightly higher than the actual whole life premiums.

TABLE II—PROPRIETARY COMPANY

Comparison of the Amounts of Insurance Purchasable for an Annual Premium of Rs. 100 *Whole Term Without Profit for the Years* 1880 *and* 1939

Age	Rate of premium charged		Amount purchasable for an annual premium of Rs. 100		Difference	Percentage
	1880	1939	1880	1939		
	Rs. a. p.	Rs. a. p.	Rs.	Rs.	Rs.	
18	26 1 8	20 1 0	3,831	4,984	1,153	30.10
20	27 0 0	21 1 0	3,704	4,748	1,044	28.19
22	27 14 5	22 3 0	3,584	4,507	923	25.75
24	28 12 10	23 6 0	3,472	4,278	806	23.21
25	29 11 3	24 0 0	3,367	4,167	800	23.76
27	30 9 8	25 6 0	3,267	3,941	674	20.63
28	30 9 8	26 2 0	3,267	3,828	561	17.17
30	32 6 5	27 14 0	3,086	3,587	501	16.23

Above Table With Profits

Age	Rate of premium charged		Amount purchasable for an annual premium of Rs. 100		Differ-ence	Per-centage
	1880	1939	1880	1939		
	Rs. a. p.	Rs. a. p.	Rs.	Rs.	Rs.	
18	29 0 0	24 13 0	3,448	4,030	582	16.88
20	30 0 0	26 0 0	3,333	3,846	513	15.39
22	31 0 0	27 4 0	3,226	3,669	443	13.73
24	32 0 0	28 10 0	3,125	3,493	368	11.77
25	33 0 0	29 5 0	3,030	3,411	381	12.57
27	34 0 0	30 14 0	2,941	3,239	298	10.13
28	34 0 0	31 12 0	2,941	3,150	209	7.11
30	36 0 0	33 10 0	2,778	2,974	196	7.05

The premium rates have been taken from the prospectuses of the company published in about 1880 and 1939. The Without-profit section shows that in 1939 a Rs. 100 premium will purchase 30.1 per cent. more of the sum assured at age 18, but this excess rapidly decreases to 16.23 per cent. at age 30. The With-profit section for the same ages shows an increase of 16.88 per cent. at age 18 declining to 7.05 per cent. only at age 30. If the actual rates of premium calculated on the same basis be obtained for later ages, they will certainly show that after a certain age the present premium would have secured a lesser sum assured as is the case in Table I.

Table III relates to the Endowment policies payable at age 60 of the above-mentioned proprietary company. Here we observe that in the Without-profit section, the present premium purchases 8.79 per cent. less of the sum assured at age 20. This percentage decreases to 4.78 per cent. at age 35 and again increases thereafter. The With-profit section shows that the sum insured obtainable to-day is less than what was obtainable at the earlier date and is comparatively more so than under the Without-profit section. At

age 20 one obtains to-day in the same company 20.82 per cent. less and at age 45, 11.98 per cent. less sum assured than was obtainable in 1880.

TABLE III—PROPRIETARY COMPANY

Comparison of the Amounts of Insurance Purchasable for an Annual Premium of Rs. 100 *Endowment Without Profit for the Years* 1880 *and* 1939

(*Attainment of age* 60)

Age	Rate of premium charged		Amount purchasable for an annual premium of Rs. 100		Difference	Percentage
	1880	1939	1880	1939		
	Rs. a. p.	Rs. a. p.	Rs.	Rs.	Rs.	
20	21 7 0	23 8 0	4,665	4,255	410	— 8.79
25	25 5 4	27 6 0	3,947	3,653	294	— 7.45
30	30 10 0	32 15 0	3,265	3,036	229	— 7.01
35	37 13 4	40 15 0	2,643	2,443	200	— 4.78
40	48 12 0	53 4 0	2,051	1,878	173	— 8.43
45	66 5 4	73 12 0	1,507	1,356	151	—10.02

Above Table With Profits

Age	1880	1939	1880	1939	Difference	Percentage
20	23 5 0	29 7 0	4,290	3,397	893	—20.82
25	27 8 0	33 13 0	3,636	2,959	677	—18.62
30	33 4 0	39 12 0	3,007	2,516	491	—16.33
35	41 1 4	48 3 0	2,434	2,075	359	—14.75
40	53 0 0	60 15 0	1,887	1,641	246	—13.04
45	72 0 8	81 13 0	1,388	1,222	166	—11.98

From Tables I and II we see that the comparative changes in the sum assured at different ages under the With-profit section is small when compared to the changes shown under the Without-profit section of Table II. But it should be remembered that the bonus rates of these companies have been amongst the highest declared in India for the past about 20 years. On the other hand, the present policyholders who purchase Without-profit Whole Term policies benefit to a large extent in the shape of an immediate

increase in the sum assured obtainable for the same rates of premium under the With-profit Whole Life policies. One thing more to be observed is that at younger ages under the With and Without Profit policies the policyholders benefit more absolutely and relatively in comparison to the policyholders at older ages.

From Table III we observe that the sum assured obtainable under With-profit rates is also less absolutely and relatively at the same ages when compared to that obtainable under Without-profit policies. Here also it should be remembered that the bonus rates in recent times have increased very much and the company concerned has been declaring a high rate of bonus for the last several years.

It is believed that lower interest rates are used in the calculation of premiums these days than in the earlier periods referred to and it is a fact that expenses are on the increase these days. Therefore, the increase in the sum assured that has been indicated under the Whole Life policies may be considered to be entirely due to the lighter mortality prevailing now amongst the assured policyholders. But for the effect of the lighter mortality the decrease shown under Table III would have been more marked, for the increase in expenses (in the shape of procuration costs) is very appreciable under these types of policies. We should, however, not jump to any cut and dried conclusions, but the above certainly represents a true trend.

At the earlier dates high rates of premium might have been deliberately charged by companies to enable them to select their business upon very broad lines. Later on, the management as a matter of policy might have decided that it would be advisable to charge lower rates of premium to attract the attention of a large circle of the insuring public and to select by strict medical examination from amongst them a reasonable volume of lives. As we have already seen, the mortality rates of Indians were not available, and being conscious of an uncertain future, the Indian companies might have added a considerable margin to the premium, to be on the safe side. With the actual experience of business over several years, the management of the companies might have reduced the extra loading for unforeseen contingencies and this would also result in lowering the premiums. If the above contention is true, our previous conclusion that the present increase in the sum assured obtainable is entirely due to light mortality may not be strictly correct.

Summing up the whole discussion, we see that the calculation of premiums of a life office is, in short, an attempt to anticipate the changes that would result in the future, in

(1) the fields of mortality,

(2) the rate of interest, taking into consideration all the factors, past experience and present situations,

(3) the expenses that have to be incurred in securing and maintaining the business.

Finally, the actual rate is determined by striking a balance between the adequacy of the premium and the margin for profit desired, keeping in view the contemporary rates of the competitors, so that the premiums quoted would be a practical proposition.

CHAPTER VIII

Policy Conditions—Modifications and Developments

In the early days of life insurance, policy forms were short. Apart from the provision for payment of the premiums by the person insured, and for the payment of the sum insured by the company, the forms contained very little additional matter. These were mostly in the nature of restrictions on occupation and travel. The failure to pay the premium on the due date (or at the most within grace periods) rendered a policy void. The advantages of non-forfeiture clause, paid-up policies, automatic premium loan, term insurance and such other well-known conditions of the policy of the present time were all unknown.

It was only in 1861 that the Legislature of Massachusetts passed the first Non-forfeiture Act. This required the companies operating in that State to grant surrender values in the form of extended term insurance.

The National Mutual Life Association of Australasia since its inception in 1869 inserted a condition in its original policies to the effect that when default was made in payment of any premium and the surrender value was sufficient to pay such premiums, the Directors should advance the amount of the premium, and keep the policy in force for the benefit of the person assured, the premium or premiums so paid remaining as a debt against the policy, to be repaid with interest for the time during which it or they remained a debt. This feature had never previously been adopted by any office doing life assurance business in any part of the world. The credit of introducing this liberal principle into life assurance practice is due to the late Colonel Templeton, C.M.G., F.I.A., the founder of the Association.

The New York Non-forfeiture Law of 1879 provided for the offer of paid-up insurance for a reduced amount in case of lapse, but only if such paid-up insurance was claimed by the owner of the policy within six months of the lapse, a restriction which destroyed much of the benefit of the law and which was generally taken advantage of by the companies.

The original policies of the Bombay Mutual had no claim to surrender values, and the policies became void if premium was not

paid on due date or within the days of grace. In 1876, the Articles of Association of the company were amended as follows:

> "Members who surrender their policies or whose policies may lapse from non-payment of premiums shall, for the present, after two years' premia shall have been paid, be entitled to a refund of 30 per cent. of the total amount of premia paid-up at the time of surrender or lapse of their policies, provided the claim is made within six months from the date of surrender or lapse after which the policy shall be void."

It would be interesting here to recall a paragraph from the report of the Directors of the Bombay Mutual for the year 1886 in connection with the granting of loans.[1]

It would now be unthinkable for an insurance company to commence business successfully without giving reasonable facilities for loans on the surrender values of its policies.

The rate of interest charged on loans is also controversial; some companies charge 5 per cent., others 6 per cent., still others 7½ per cent., and in some cases when interest is not paid within due dates even 9 per cent. is charged on the outstanding loan. In one instance, the rate of interest on loans against policies issued up to a certain year (Hindustan Co-operative Insurance Society Ltd.—year 1922) was 6¼ per cent. and was subsequently increased to 7½ per cent. for policies issued thereafter. In another case, the interest on loans is 7½ per cent. but is reduced to 6 per cent. when the amount of loan is over Rs. 500, thus favouring the richer policy-holders (Oriental Government Security Life Assurance Co., Ltd.). The General Assurance Company of Ajmer reduced interest on loans to 4½ per cent. recently.

The convention of allowing an old policy to lapse in the event of default of payment of premium and of requiring a declaration of good health from the assured for reinstatement of the policy has been familiar in India since the early period of insurance history. The surrender value of the policy was the only sum payable in case of death during such lapsed period and if the health of the assured deteriorated during this interval, the company had the option to refuse to continue the policy and would pay the surrender value only (Hindustan Co-operative's early series of policies). However, this practice is dying out.

[1] See quotation on page 95.

The policy conditions and privileges are printed on the back of the policy and are incorporated in the body of the contract by reference. The conditions may be divided under the following sub-headings:

1. Explanation of the nature of contract.
2. Determination of scope of contract.
3. Payment of premiums.
4. Payment of sum assured.
5. Additional benefits.

The arrangement of conditions varies with different companies. In the following discussions we would generally follow the above arrangement. It should be noted clearly that all the conditions discussed hereafter do not appear even in the most general policies, viz., Whole Life and Endowment policies of any one particular company.

Explanation of the Contract. There are two conditions explaining the nature of contract. The first, and the most common example, is the condition that if premium is not paid within the days of grace the assurance will be void, subject to certain privileges which will be explained later on. The second condition rendering the contract void is operative if any declaration made in the proposal or statement before the medical examiner or in any subsequent declaration is found out to be untrue. The declarations made in the proposal and the statements made before the medical examiner are incorporated in the body of the policy by reference and, consequently, no separate clause or condition appears on the back of the policy.

Some companies consider the statements made by the proposer as warranties (the wordings in the declaration of the proposal being so worded as to give the above effect). We will examine the following condition:

> "This assurance is conditional upon the questions contained in the proposal forming the basis of the contract having been truly answered, and if an untrue answer shall have been given to any such questions or if any material fact touching the health, habits and occupation of the assured has been suppressed or concealed from the knowledge of the company, this assurance will be void."

The condition will turn out to be very hard if mis-statement is made in the proposal unintentionally and (the mistake, though not

relevant to the consideration of insurance) is found out on a subsequent date. The office can forfeit all premiums paid to that date, if it treats such mistakes as breach of warranties. To mitigate the ill effects of such a condition, an indisputability clause is usually added. This clause runs as follows:

> "After this policy has been in force for two years and provided the age is admitted, it is indisputable with regard to statements made in the proposal except *on grounds of fraud.*"

We observe that the indisputability clause contains one exception, viz., the admission of age. The premium for insurance varies according to age, and as the age admission is not a condition precedent to the issue of policy, many policies are issued at premiums payable at the stated ages. (In any case, the age of the assured has to be admitted before any claim is paid under the policy and it is, therefore, desirable that the same should be done at the earliest opportunity. It is much easier to procure such evidence at the time when the policy is issued, than when the policy money becomes due.)

If a mis-statement in age is detected during the continuance of the policy, it is dealt with in two ways:

1. If the real age is less than what is stated, the difference in premium is returned to the policyholder.
2. If the real age is more, the difference in premium is charged together with usual rate of interest.

It must be clearly understood that if the correct age is higher than that which would entitle a person to assure under any scheme, the policy is void. But even in such extreme cases, offices treat the assured leniently, if after investigation the office is satisfied that the age stated was a genuine mistake on the part of the insured, and that he had no intention to defraud the company. The procedure followed in such circumstances is that some other suitable plan is offered to the policyholder with a higher premium rate. The premiums already paid are credited to the new policy which is issued as from the date of the original policy.

If the mistake in age declared is detected after death of the policyholder or on the maturity of the policy, then

(1) in case the actual age is lower than the stated age, the difference in rate of premiums paid is refunded,

(2) in case of higher age, the sum assured is reduced in proportion to the actual rate of premium paid, to the higher rate of premium due at the correct age, subject, of course, to the age being within the limit insurable under the specific policy at commencement.

The policy is otherwise void *ab initio* and the option lies with the company, either to forfeit the premiums paid or make an offer to return them. Some companies deduct the first year's premiums from such payment. The wording of the condition is as follows:

> "Where the age of the assured has not been previously admitted, if it be found that the age has been under-stated, the policy will not on that account alone be voidable (except where the correct age would not have qualified for an assurance under the table in question, in which case the policy will be void), but the office shall only be liable for such sums as the premiums actually paid would have assured at the correct age under the said table. If the age has been over-stated the excess premium paid will be refunded."

Determination of the Scope of Contract. Restrictive conditions are imposed to eliminate or reduce moral hazard or to exclude physical hazards which are not provided for in the premiums charged. A moral hazard exists where it lies within the power of the assured to bring about a loss or to increase the risk of loss to the company. If the existence of the assurance is not an operative motive for the assured to bring about this loss or to increase the risk of it, a company can take account of the moral hazard in the premium charged (although data for its assessment may be deficient). But where the existence of assurance may be expected to be an operative motive for such acts, no premium can be adequate or at least no assurance satisfactory to the company can be arranged. Under such circumstances the company has no option but to refuse the assurance or to exclude from the policy the risks over which the assured can exercise control. The problem so far as it relates to life insurance is simple, for loss can only be brought about by the extinction of the life assured, and this implies suicide or murder. Some offices, therefore, exclude the risk of suicide in early years and rely on the common law to defeat the claim arising out of a murder. The wording of the suicide clause is on the following lines:

> "In case the life assured shall within thirteen months from the date of commencement of assurance die by his/her own hands, whether sane or insane, or at the hands of justice, this policy shall be void and all

premiums paid forfeited; but in this case the interests of a *bona fide* assignee for valuable consideration will be protected to the extent of his/her interest provided such assignment has been registered with the company at least one month prior to the date of suicide or the date of the offence for which the assured meets with death at the hands of justice, as the case may be."

From the wording of the above clause a few points stand out:

(1) The offices consider that the risk of moral hazard of suicide if excluded for about a year, can be provided for and is provided for in the premiums.

(2) Even during this restrictive period the interests of a *bona fide* third party for valuable consideration is held covered provided notice of such valuable consideration has been given and is registered with the company at least a month before the happening of such an event.

In a recent case, *Beresford* vs. *The Royal Insurance Co., Ltd.*, the effect of suicide on insurance claims even after the restriction period has been thoroughly examined. The insurance company objected to the payment on the grounds of public policy, as the assured, Major Rawlinson, was in great financial difficulties and wanted to convert his policies into cash for the benefit of his estate. It was finally decided by the Privy Council that he committed suicide while of sound mind and it therefore was a case of *felo de se*. Now public policy does not make it illegal for an insurer to pay in such circumstances. It makes it impossible for a court of law, if the policy is sued on, to give judgment for the plaintiff. The effect of this decision will be to strengthen the ordinary interpretation of the suicide clause, referred to above, and suicide after the restrictive period will not prevent beneficiaries or administrators of the assured from suing the company, and the company cannot deny liability and refuse payment on grounds of public policy, except when it is definitely established that it was a case of suicide while of sound mind with an intention to cheat the insurance company. In this connection, it should also be remembered that suicide is recognised as a felonious act in English law and hence is a crime, but committing suicide is not regarded as a crime in India either by common law or by statute.[1]

The assured may increase the risk by changing to a hazardous occupation, by proceeding to an unhealthy locality or by taking

[1] Appeal 282 of 1937—Lahore High Court.

up some dangerous pursuit. If we examine the reasons why people change their occupations or proceed to unhealthy climates, we will find that they are quite different and have got nothing to do with their existing life insurance policies, save so far as they give them a confidence that whatever may happen to them their dependents would be provided for. The quest of bread and the spirit of adventure take men to many new occupations and to different lands, and as there is no deliberate desire to impair one's health or to hasten one's end, the moral hazard arising out of such occupations is slight and can be provided for in the premiums with a fair degree of accuracy.

The procedure adopted by the offices on this point varies greatly. All offices assess the risk on the information disclosed in the proposal and the statements in the medical report. There is also usually another question in the proposal form which enquires about the proposer's prospects and intention of engaging in any business or occupation more than usually hazardous. If the occupation is not a hazardous one, some companies do not charge any extra, should the insured subsequently change his occupation, while others, in spite of it, put in a restrictive clause in the policy requiring the assured to intimate any change in occupation to the office and pay an adequate extra premium to cover the additional risk, which charge is removed on his giving up such occupation in unimpaired health.

This restrictive clause is a real handicap, and while it is true that a very small percentage of assured change from one occupation selected at the beginning of a career to another, and fewer amongst them change over to a hazardous occupation, nevertheless, ignorance of this policy condition may work hard on the beneficiaries if death intervenes. In such a contingency only the surrender value is payable which, of course, is an advancement on the previous practice of declaring the policy void. But the whole position, even as it is now, is unsatisfactory. In case a life assured engages in hazardous occupation without intimation and leaves off, when health is impaired, and dies after some time of some ordinary disease (say, pneumonia), the office having no knowledge of his previous occupation and the remote cause of death, may pay the sum assured. If it had the information, it might have paid only the surrender value and incurred the odium of the insured public.

Some companies, however, have modified that if the assured engages in hazardous occupation without intimation and without payment of the extra applicable, then in case of death of the assured while engaged in such hazardous occupation, the office will have the right to deduct from the sum assured the amount that would have been charged as extra premium on such change of occupation together with a certain rate of compound interest thereon.

The wording of the condition is as follows:

"If the assured hereafter engages in any hazardous or unhealthy occupation such as work in mines, or on railway lines, or in connection with furnaces, electrical installations, chemical works, boilers, etc., the office reserves the right to charge an adequate extra premium to cover the additional risk, which charge will be removed on his giving up such occupation in unimpaired health. The change of occupation to a hazardous one, as above, must be intimated to the head office of the office and the required extra charge paid, failing which the office will have the right, in the event of the death of the assured while engaged in such hazardous occupation, to deduct from the sum assured the amount that would have been charged as extra premium on such occupation being duly intimated, together with 9 per cent. compound interest thereon."

Needless to say that the latest tendency in drafting the policy conditions or modifying them is to issue the policy free from all restrictions as to future occupation, provided the proposer has no prospect or intention of engaging in hazardous occupations. The wording of such endorsement is brief and it is as follows:

"This policy is free from all restrictions as to occupation unless otherwise provided in the within schedule."

All offices exclude military and naval services. If the assured joins such services he has to pay a suitable extra premium imposed by the company after taking all factors into consideration, unless he has already got this clause waived by payment of a level extra premium along with his usual premium. The level extra premium ceases at the retiring age or on actual retirement, or on the determination of the policy, whichever occurs first.[1]

The exclusion of military and naval services was thought of when the same was a voluntary act, but the Great War materially changed the position. All men are liable to conscription, and in

[1] The tendency of several insurance companies of late has been to cover the risks of military and naval services on payment of a heavy extra premium only. Some companies have even taken out from their prospectuses the option of the level extra premiums during peace-time.

view of the present political turmoil in the continent of Europe and other parts of the world, one is apt to question whether civilians are at all more safe than men of the armed forces. It has already been seen that behind the army lines, attacks on civilian populations are ruthlessly carried out by the Germans to demoralise them and thus make the Government of a country ineffective. The English offices, primarily on grounds of patriotism, waived this condition without charging any extra for all policies effected before the Great War and charged only the new assured. The problem so far as India was concerned does not seem to have been acute. The men of the Indian land forces are drawn from a class of people who do not ordinarily insure and consequently losses due to war are small. The Indian Navy is so small and being primarily meant for guarding the coastline of India does not constitute a serious problem for the present. Even then, the above risks are excluded from the policy. The following is the usual wording:

> "If a policy is effected at ordinary rate without an extra premium for military and naval risks, it does not cover war risk, and the policyholder is required to intimate to the company before engaging in active service or proceeding to a danger-zone of war-like operations and pay such extra premiums as will be determined by the company according to the circumstances then existing."

The usual extra payable on a policy to be issued free from the naval and military risks clause varies between Rs. 3 and Rs. 4 only and is payable up to the age of retirement or the determination of the policy, whichever may occur earlier.

The rapid development of the means of communication and transport is enabling more men to travel in comfort for pleasure as well as business to distant countries. The importance of air travel has increasingly made its influence felt even in the sphere of insurance. Aviation and aeronautics have opened a new branch of employment, and introduced, at least in the beginning, an incalculable and uncertain risk of death or injury never imagined before. The life offices at first declined to entertain proposals from persons employed in aviation and declared the policies void if the assured took to aviation or aeronautics. The next stage was when companies offered the surrender value of the policy or the return of premiums excluding that of the first year. The collection of data for assessing this new risk was carried on simultaneously and from time to time attempts were made to suggest suitable extras.

The improvements made in the construction of planes, collection of reliable data of atmospheric conditions, better landing grounds and development in general in the science of aviation have considerably reduced the flying hazards of the present day. Regular air services carry passengers and mail to distant countries, and the risk attending on such ventures whether one is travelling or is employed in such services, seems to be no more than that prevailing in other forms of transport such as railways or ships. Offices now do not object to flying as fare-paying passengers in a recognised passenger air-liner and the policy is valid if death occurs under such circumstances. Otherwise, in the event of death of the assured arising directly or indirectly from engaging in aviation or aeronautics, only the surrender value is payable. The wording of the clause is as follows:

> "In the event of the death of the assured arising directly or indirectly from engaging in aviation or aeronautics except as a passenger in a recognised passenger air-liner this policy shall be void and all premiums paid shall be forfeited except to the extent of the net surrender value."

Some offices do consider the engagement in aviation or aeronautics as hazardous occupation and treat it as such. But if at the time of proposal, the proposer has no prospect or intention of taking to aviation as a career, a policy is issued subject to no restrictions, and it is not void, if the assured engages in aviation thereafter.[1] If, however, the proposer is a pilot and plies an aeroplane, an extra premium varying according to the circumstances is imposed usually for a period of the first five years.

Quick, safe and comfortable means of transport now carry men from one part of the world to another with greater frequency and rapidity. People move from one part of a country to another for employment and trade amongst different countries and this has resulted in the closer study of social conditions and political systems prevalent in the different countries. The world is in a state of great flux of ideas in social, political and religious spheres and necessarily each country stands out as a separate entity. The political insecurity of certain countries, the rapid overthrow of Governments by means of force and such similar factors tend to make life insecure in such places. Superstitions and backward

[1] The company which granted the above benefit has recently revised its prospectus and withdrawn the above privilege.

social customs also tend to shorten life. The lack of civic consciousness in places permits the spread of insanitary conditions and epidemics and diseases become rife. Added to the above, the difference in climates from Arctic cold to Equatorial heat, arid deserts and marshy swamps affect the health and longevity more adversely of people coming from other parts than people resident thereof. The temporary residence in a hot country outside one's own temperate or cold country for pleasure or business may permanently impair the health without visible signs. The problem of acclimatisation falls within the scope of medical science as well as insurance. Age, general constitution, the duration and the part of the year of such stay, all have a bearing on this problem. But side by side, we see that marshy tracts change into fertile fields, health resorts spring up in places not frequented before, and improvements in cities in the form of better building construction, facilities for public parks, improved sanitary conditions, hospitals and medical aid, all of which tend to lengthen the human span and reduce the dread and suffering on account of diseases.

As the above conditions affect the general mortality and to an extent the interest rates, their influence on insurance is great. However, in India uniform rates of premium are charged for the whole of the country and policies are issued subject to no restrictions as to travel, occupation or residence, except when there is intention or prospect of the proposer going to unhealthy climates. The world-wide clause is a short one, and is usually as follows:

> "This policy is free from all restrictions as to travel and residence, unless otherwise provided in the within schedule."

The reason for this is that persons who go out of India may be broadly divided into two sections, viz.,

(1) Labour class going out to find means of livelihood.

(2) Financially better off class who go out for education, business or pleasure trips.

From the viewpoint of life insurance it is very unlikely that any person belonging to section (1) is insured, and consequently the business of life insurance does not suffer even though they may go to places with unhealthy climates and engage in hazardous occupations.

Persons belonging to the second group usually go to the countries of Europe, America and Japan. The climate of these countries is temperate and invigorating and living conditions better, which are conducive to better health and lighter mortality. Hence the companies allow a reduction in premiums for the period of such stay in temperate climates, to which we will refer later.

Payment of Premiums. The risk under a policy commences from the date of receipt of the first premium in full or the date of company's letter of acceptance, whichever is the later. The policy may, however, be ante-dated within the official year for a period not exceeding three months to give the benefit of a lower age premium to the assured. The premiums as quoted in the prospectus are due yearly, but to suit the conveniences of the assured, payments by more instalments specified in the schedule are accepted without any extra charge. But this practice has not yet become universal. Some companies do charge extra ranging from 5 per cent. to 6¼ per cent. on annual premiums when payments are made in monthly instalments, and a few stick to the old practice of charging extra even in case of half-yearly and quarterly premiums. Of late, policy-holders have been encouraged to pay annually by the offer of a further reduction of 1¼ per cent. to 2½ per cent. from the tabular annual rates quoted. But it is interesting to note that the latter benefit is not mentioned in the policy. It is likely, therefore, that if a policyholder paying premiums in other than annual instalments desires to pay annually at some future date when the above benefit may have been reduced or withdrawn, he is not likely to get the benefit of it, although this feature in itself may have weighed with him in his preference to insure with the particular company.

Since the beginning of 1940, companies have revised their policy conditions to conform with the requirements of the Insurance Act and the rebates for payment of annual or half-yearly payments are now mentioned on the back of policies. The following wording has been used by a company:

> "A rebate of 2 per cent. of the premium (exclusive of any extra premium) is allowed if the premium is paid annually and of 1 per cent. if it is paid in half-yearly instalments. The quarterly instalment is one-fourth of the annual premium, but an extra of one anna per rupee of the annual premium is charged if payments are made in monthly instalments."

Premiums are to be paid to the company in full free of all charges whatsoever. Companies have generally their branches or authorised collecting agents in important cities. They have also arrangements with banks all over the country for collecting premiums. Cheques received within the days of grace are also accepted subject to realisation. As a result of this a policyholder residing in a distant place is not handicapped in paying his premiums, and can take full advantage of the days of grace. However, some companies specifically mention that the company is not responsible for any delay caused in payment of premiums through post or otherwise. The wording of the condition is as follows:

> "One calendar month's grace is allowed for the payment of yearly, half-yearly or quarterly premiums and fifteen days for monthly premiums; when the days of grace expire on a Sunday or a public holiday, the premium may be paid on the following business day. In the event of the death of the life assured within the days of grace and before payment of premium then due, the claim will still be valid, subject to the following condition."

The premiums are due yearly, but payments in half-yearly, quarterly or monthly instalments are accepted for the convenience of the assured, subject to any extra or restriction as to minimum premium as specified by the company. Therefore in the case of a claim arising during the days of grace or during the period of automatic extension, it is valid subject to deduction of the balance of instalments remaining unpaid (if any) in respect of the current policy year from the amount payable under the policy. The condition is brief and is as follows:

> "All unpaid instalments of the year of death to complete full year's premium will be deducted from the amount payable under the policy."

When the premium is not paid within the days of grace the policy lapses as from the due date of the unpaid premium subject to automatic extension privilege if entitled to this. The policy may be revived on application by the assured if the Directors are satisfied as to the continued good health and eligibility of the life for assurance and on payment of the arrears of premiums with a specified rate of interest thereon which is reckoned from the due date of each unpaid premium. Generally, the following evidence is accepted:

1. Personal declaration on company's printed form, if revival is applied for within six months from date of lapse.

2. A short medical form with declarations, supplied by the company, duly completed by an authorised doctor, if revival is applied for after six months, but before twelve months from date of lapse.

3. Full medical report completed by an approved doctor at assured's own expense, if revival is applied for after one year from the date of lapse.

The condition as incorporated in the policy of a company has the following wording:

> "A lapsed policy may be revived at any time within one year from the due date of the first unpaid premium or instalment, on proof being given to the satisfaction of the directorate of the company, of the continued assurability of the assured, and on payment of all arrears of premium with interest thereon at 7½ per cent. per annum (subject to a minimum of As. 8) . . . ."

Special revival terms applicable to policies which at the date of lapse had acquired no surrender values have been introduced by several companies to suit the convenience of policyholders, who may not consider it in their interests to make payment of the ordinary revival charges. They are applicable only to policies which remain lapsed for not less than six months and not more than two years and apply only on one occasion during the existence of the policy and on production of a satisfactory medical report. Under this scheme a new policy is issued for the same period of assurance as the lapsed policy, dated back for such period for which the lapsed policy was in force and having, therefore, the same unexpired term of assurance at date of revival as the original lapsed policy had at the date of lapse. The premium payable on the new policy will be calculated for the same term of assurance as that of the original lapsed policy at the rate applicable to the age of the policyholder at the date of revival, and the special revival charge will be the difference between the aggregate of the premiums originally paid and the amounts that would have been paid at the new rate of premium accumulated for the period dated back with interest at a fixed rate per annum compounded half-yearly reckoned from the due date of each unpaid premium subject to a minimum revival charge. The rate of interest and the minimum revival charges vary with different companies. One large Indian insurance company charges interest at 7½ per cent. and Re. 1 as minimum revival

charge. On the other hand, another well-known company charges 6 per cent. and As. 8 respectively on account of interest and revival charge.

The above revival scheme is not mentioned in the policy nor recorded in detail in the prospectuses of all companies which give this benefit. In some prospectuses only a reference is made and the policyholder is directed to apply to the Head Office or branch for further particulars.

A policy acquires a surrender or cash value only after it has been in force for more than a year, because the total first year's premium is usually wiped off in expenses incurred to secure the policy and payment of first year's claim.

As we have explained in an earlier chapter, companies have to accumulate a reserve out of their premiums to meet future claims in years in which the current premiums may not be adequate. Offices are prepared to part with some of these reserves in cancellation of their obligations and the values that they will give for a policy surrendered is popularly known as "surrender" or "cash" value. This surrender value is payable after a policy has been in force for more than a year. Some offices guarantee return of a minimum fixed percentage of annual premiums (excluding that of the first year) paid. The actual quotations can be obtained from the office; and where it is less than the minimum, the guaranteed sum is payable. The amount of surrender value varies according to the age of the assured, plan of assurance and the period a policy has been in force. Offices usually have ready-made tables showing the surrender values under different plans of assurance corresponding to the age nearest birthday, and the full number of years that the policy has been in force. In calculating the surrender value only the annual premiums paid are taken into consideration excluding any extra that may have been imposed. A holder of a policy who is paying the premiums by half-yearly, quarterly or monthly instalments may pay the remaining instalments to make up one full year's premium to get the advantage of a higher surrender value. In several cases, particularly in policies of long existence, the increase in surrender value is more than the balance payable to complete one full year's premium. But before the surrender value is paid, the age has to be admitted, if it has not been already done, and any

debt standing against the policy is a first charge on the surrender value. The relevant clause is quoted from a policy.

> "After two full years' premiums have been paid on this policy it may be surrendered to the company, if there be no legal impediment, for a guaranteed cash value of not less than 45 per cent. of all premiums paid excluding the first year's premium, calculated on an annual basis if applied for while the policy is in force. Any debt owing to the company by the policyholder in connection with this policy will be deducted from such surrender value before payment thereof. No increase in such surrender value will be available by reason of any addition to the ordinary annual rate of premium. The age of the assured must be proved before the surrender value can be paid."

After at least two or three annual premiums have been paid, a policy in force can be converted into a paid-up policy for a reduced amount, provided such sum be not less than a fixed minimum. The minimum varies with different companies; usually it is stated to be Rs. 150 or Rs. 200 excluding any bonus additions.[1] The amount of paid-up policy, where the original policy was with limited payments, will bear the same proportion to the sum assured as the number of annual premiums paid bears to the number originally payable. No more premiums are payable on a paid-up policy and the amount thereunder is payable under similar conditions as appearing in the original policy. All arrears of premiums up to the date of application for a paid-up policy with interest thereon at a fixed rate (6 per cent. to 7½ per cent.) per annum compounded half-yearly, will have to be paid. In case of a participating policy, bonuses already allotted will remain attached, but future profits will not accrue to it.

This is embodied in the policy (on the back of it) as follows:

> "If the assured should desire to discontinue payment of premiums hereunder, this policy may be endorsed as a non-participating paid-up policy (on application while it is in force) for a proportionate lesser amount, after two full years' premiums have been paid hereon, in which case there will be no liability to pay further premiums. The amount of such paid-up value will bear the same proportion to the original sum assured as the number of annual premiums paid bears to the number payable under the original policy. (The amount of the paid-up policy, where the premiums for the original policy were not limited in number, will be quoted on application.) Provided always that no paid-up policy will be granted where such proportionate value is less than Rs. 200. All arrears of

1 The new Insurance Act of 1938 fixed the minimum at Rs. 100.

premium, if any, with 7½ per cent. per annum compound interest, and all arrears of interest on any outstanding loan on the security of this policy, will have to be paid before this policy can be endorsed as paid-up."

The method of determining the paid-up value of a Whole Life policy is explained below.

Suppose a person aged 25 pays a premium of Rs. 24 for a Without-profit Whole Life policy of Rs. 1,000. He desires to make the policy paid-up at age 40 when the annual premium for a person aged 40 under the same plan is Rs. 39. If the person aged 40 pays a premium of Rs. 24 only, he will get a policy for 24/39 of Rs. 1,000 or Rs. 615. Therefore, the reserve already accumulated from the premiums paid would secure a paid-up policy of Rs. 385 which would be payable under the same terms and conditions as the original policy. No future premiums are payable and a "With-profits" policy does not participate in future profits.[1]

On cessation of premium payment and receipt of an application from the assured while the policy is in force, it can be made paid-up as explained above. However, it is unusual in practice to receive applications for paid-up policies immediately a premium goes into arrear for the simple reasons, viz., that

(1) when once it is made paid-up, it cannot be reinstated to original value easily, and

(2) temporary difficulties such as illness, absence from home or financial difficulties may be the cause for non-payment. Sheer forgetfulness also plays some part.

Therefore, once a policy acquires surrender value, it is automatically kept in force for the full sum assured for a period which varies in proportion to the surrender value held against the policy. The practice varies with different companies, and the following are the usual modifications.

In one company a policy is kept in full force for six months from the date of last overdue payment and thereafter it is automatically made paid-up. In others it is usual to keep the policy going for the full amount till the surrender value or balance of it is sufficient to pay the instalment of premiums in full, or in the alternative till a date up to which proportional monthly premiums can be

[1] See page 255.

advanced. The premiums are debited to the surrender value on their due dates and credited to the premium account and interest at a fixed rate is charged on such advances.

Some companies have tabulated tables of surrender values for each type of policy at different age and for the duration of the policy. Herein the surrender value also increases with the increase in the number of complete annual payments.

Again, in some other companies the surrender value available at the date of first non-payment is only advanced. The latter procedure is not fair because interest is taken into calculation in determining when the surrender value is exhausted and is charged to the assured when he tenders overdue premium or premiums during such periods. Once the surrender value is exhausted the policy finally lapses and nothing is payable under it. However, it is sometimes still open to the assured to submit evidences of health and continued insurability together with payment of all overdue premiums with interest, when the policy can be brought again to its original position.

Of the above three systems prevalent among Indian companies the second is the most advantageous to the assured and is also equitable. The first system, though practised by the largest of Indian life companies, does not appear to be very equitable in the case of a policyholder who has paid premiums for a number of years under his policy. For example, on a 20 years' Endowment policy for Rs. 10,000, ten years' premiums are paid and the premiums are not paid for a period of one year due to illness. Under the first system, at the end of the automatic extension period the policy will be immediately reduced to Rs. 5,000 only. That is, the insurance is automatically reduced when its cover is most required. Under the second and third systems the policy would be kept in force to the full sum assured for at least four years, the period being longer in the case of the second system for reasons explained before. This condition is embodied as follows, and it speaks for itself.

"After this policy has acquired a cash surrender value, it will not lapse on account of non-payment of premium, but will be kept automatically in force so long as the net cash surrender value (i.e., after deduction therefrom of any indebtedness to the company and the interest accrued thereon) is sufficient to cover the unpaid premiums that have or may become due together with compound interest thereon at 7½ per cent. per

annum. In such case, the amount of such premiums will be advanced without any request or action on that behalf, the policy being thus kept in force so long as the said cash surrender value covers the requisite premium with interest. In case the policy becomes a claim within the period of automatic extension, such claim will be considered good, subject to deduction from the sum assured of the amount advanced as premium and other debt or debts to the society, if any, with interest thereon. In determining the automatic extension period, part of a year will be taken into account, but not part of a month."

"Repayment of such advances will be accepted at any time while the policy is in force with compound interest at 7½ per cent. per annum, and upon such repayment with interest being made, the policy will be automatically restored to its original position. If such repayment is not made within the period during which the policy is automatically kept in force, then the amount of the net value being exhausted, this policy will lapse, and become null and void, and all liability of the society will terminate."

Payment of the Sum Assured. On a claim arising under a policy, certain formalities have to be observed by the beneficiaries before a company makes payment. Due to ignorance and sometimes due to circumstances of the death, an unnecessarily long time elapses before a settlement is effected. The blame, however, does not seem to lie at the door of insurance companies, who always reiterate that it is their greatest concern and anxiety to help widows and other claimants in all possible manner and to see that claims are settled with the minimum of delay.

One Indian insurance company pays interest at 4 per cent. per annum on the sum payable under a claim when the settlement is delayed beyond six months, except through negligence of the beneficiaries. This example should be generally adopted and its adoption will go a long way to remove the prejudices and distrust of the insuring public.

Be it what it may, it should be the greatest concern of all who have the welfare of Indian insurance at heart to see that the settlement is expeditiously done with the minimum of necessary formalities.[1] A claim on a matured (Endowment) policy will be immediately paid to the person entitled thereto on receipt of proof of age of the life assured (if not previously established) and the policy duly discharged as per form to be supplied by the company. A claim by death will be paid immediately after proofs of death and of age

[1] See section 47 of the Indian Insurance Act, 1938, and chapter on "Legal Aspect and Insurance Law in India," page 252.

(if not previously established) of the life assured, and the title of the claimant, satisfactory to the Directors have been produced. The following certificates are usually required as proofs of death.

1. Certificate of the doctor who attended the deceased in his last illness.
2. A certified extract from the municipal or police register of deaths.
3. A certificate of identity from an independent gentleman.

Proof of age is an essential condition of insurance and it must be produced to the satisfaction of the Directors before any claim can be paid on a policy. When premiums are payable by half-yearly, quarterly or monthly instalments of the premium due on the policy for the policy year, the remaining instalments due for the year are usually deducted from the amount of claim.

It is, however, interesting to observe that in policies issued by some companies no reference is made in the conditions as to the requirements at the time of settlement and in case of a few others only, the following condition appears:

> "The amount due under this policy is payable at the Head Office of the company in . . . . but the company is at liberty at its absolute discretion to fix at any time before or after the policy has become a claim, any alternative place of payment."

As a contrast to the Indian practice of not putting any clause regarding claim settlement, the following endorsement of a Canadian company working in India is quoted:

> "If this policy becomes a claim by death, the company will, subject to discharge and legal surrender of the policy to the company, pay the amount due within thirty days of the receipt at its Home Office of due proof of claim. Proof of claim shall include such evidence under oath as may be required by the company of the death of the insured and the causes leading thereto, and of the title of the claimant and proof of the age as mentioned in endorsement hereof, and such other information as the company may deem necessary to establish the validity of the contract. Any action for the recovery of any amount claimed under this policy must be commenced within one year of the date on which notice of the death of the insured is received by the company."

The last sentence of the above condition (underlined) is very undesirable and should be deleted from policies issued in distant countries.

However, it must also be stated to the credit of the Canadian companies that the draft of their policy conditions is very clear and unambiguous, no doubt the result of careful revision due to legal decisions which are plentiful in America. They are further inspired by the desire to give new benefits to the assured. One such benefit, which might be introduced in India, is the optional mode of payment of the sum assured if the policy becomes a claim by death. This prevents squandering away of the money, saves the worry of investments and prevents its being seized by unscrupulous persons posing as friends of families. The condition as it appears on a policy is worded as follows:

> "At any time during the continuance of this policy, provided it has not been assigned, the insured may by completing proper agreements and filing same at the Home Office of the company, provide that if this policy becomes a claim by death the proceeds shall be retained by the company to the credit of the beneficiary and shall be payable by the company at a later date or in a series of instalments, subject to payment of interest by the company on the amount remaining on deposit from time to time at the rate determined by its Board of Directors from time to time, at least 3½ per cent. compounded annually being guaranteed or the proceeds may likewise be applied to provide an annuity for the beneficiary."

Similar arrangements can be made for the payment of the sum assured at maturity either through fixed instalments or as an annuity throughout the life of the assured. In some cases option is to be exercised at least two years before the maturity date, if a third type of settlement is desired, viz., an increased fully paid-up Whole Life policy instead of cash payment under the maturing policy. Such paid-up policies sometimes continue to participate in profit.

As mentioned before, the optional settlement is usually permitted either at death or at maturity of the policy. It may take the following forms:

(1) Payment of interest upon the sum insured during the lifetime of the beneficiary or for some other period fixed by the election of the insured (or of the beneficiary at the death of the insured) together with the payment of the principal sum at the end of that period.

(2) Payment of equal instalments including both principal and interest, for a fixed period of years, irrespective of whether or not the original beneficiary survives.

(3) Payment of equal instalments for a fixed period of years as stated in (2) above, but with continuation of such instalments to the beneficiary for life if still living at the end of that period, the amount of the instalments depending not only on the length of the fixed period as in (2) but also on the age of the beneficiary.

(4) Payment of instalments of a selected amount until the principal sum is exhausted, interest being credited annually on the unpaid balance.

(5) Sometimes an option is also given to the beneficiary to apply the proceeds of the policy in the purchase of a life annuity at a rate somewhat more favourable than that applicable to other purchasers. In this case the age of the beneficiary has to be admitted before the value of the annuity is fixed.

The settlement as decided under the original policy is witnessed by a supplementary contract issued in exchange for the original policy. Sometimes the settlement may be provided for by endorsement on the original policy.

The use of these alternative modes of settlement has greatly increased in recent years in America and to some extent in England. This has in fact been one of the most remarkable features of the development of life insurance business in the last decade. The value of such settlements is in providing a safe and convenient method of investment, in conserving the proceeds of life insurance policies and in ensuring that the intentions of the insured will be carried out. The many special uses and purposes which the optional settlement can be made to serve, have been recognised in a rapidly increasing degree. At the present time a substantial proportion of new policies issued in America contain provision for settlement by one of the optional modes described. The proportion of such policies appears to be still further increasing.

The necessity of such settlement clauses needs emphasis in India. It is already overdue and the attention of companies in the vanguard

of Indian business should now be seriously directed to this problem. The introduction of this system will go a long way to dispel the doubts that people have against insurance and to prevent capital amounts being squandered by beneficiaries or misappropriated by their unscrupulous friends. Incidentally, the relevant experience of a Canadian company may be quoted here. It states that more than 85 per cent. of the claim amounts paid are usually lost within five years of settlement.[1] This experience is certainly very discouraging to persons proposing for insurance. The optional modes of settlement will reduce the above abuses and dispel the doubts of wavering persons.

1 Advertisement of the Manufacturers Life Insurance Co., Ltd., in the *Times of India* in early 1936.

CHAPTER IX

Policy Conditions—Modifications and Developments (*contd.*)

ADDITIONAL BENEFITS

THE conditions in policies generally provide for the granting of loans on the security of the policy at a specified rate of interest, the extent of loan being determined by the cash surrender value available under the policy. Policy loans are not encouraged by companies. They are apt to lead to lapses and thus defeat the purpose of insurance. Policy loans are in a sense a necessary evil of the level premium plan of insurance. The insured has created an asset and he can dispose of it as he pleases. If the company will not lend him the surrender value he may surrender the policy outright. He is not obliged to repay the loan taken by him, in fact a large number of loans are never repaid. In such cases the purpose of insurance is defeated. However, to overcome a temporary financial difficulty, the loan is very helpful. Some companies specify the fixed percentage of surrender value that can be advanced and the amount of minimum loan. The condition for the granting of loans is usually worded as follows:

> "Loans are granted on security of the policy, and otherwise unencumbered up to 90 per cent. of the surrender value for a sum not less than Rs. 100. No loan will be granted on children's policies."

Some companies specify the rate of interest also in the clause as shown below:

> "The rate of interest will be 7½ per cent. per annum compounded half-yearly."

The premium payable under a policy is not always in strict proportion to the sum insured. It is reduced slightly when the policy amount is a large one. It is also reduced by a certain percentage when the payment of premium is made annually. When the policyholder proceeds to and resides in some area specified in the policy, the premium is reduced usually by 10 per cent. for the period of actual absence from the date of leaving any port in India. We will now discuss these conditions.

The usual reduction for a large policy is As. 8 per Rs. 1,000 when the policy is Rs. 10,000 or more in a single name, and Re. 1

per Rs. 1,000 if the policy is for Rs. 20,000 and over. Some special types of policies are excluded from this benefit. This condition appears in the prospectuses of most companies.[1] It is equitable, for the office expenses on policies assuring large or small amounts are practically the same.

When the premium is paid annually, the tabular rate of premium is usually accepted with a reduction of 2½ per cent. The reduction is limited by a few companies to 1½ per cent. while others do not give any reduction at all. But the reduction of 2½ per cent. from premiums paid annually appears to be unwarranted. For example, let us assume that under a policy of 20 years' endowment, premium is payable quarterly without any extra which is the usual practice. The office receives the first quarterly premium in time, the second three months in arrear and the third six months in arrear and the fourth nine months in arrear. For simplification of discussion we ignore the days of grace. Now the premium is calculated on the annual basis to be received at the beginning of each insurance year and is supposed to earn interest at a specified rate, say, 4 per cent. at the minimum. Assuming the premium amount to be Rs. 100 only, the interest that would have been earned would amount to Rs. 4 at the end of the year. But according to usual practice, the first quarterly premium of Rs. 25 will earn interest for a year, the second instalment for nine months, the third for six months and the fourth for three months only. The total interest earned by the company, therefore, will be 2½ per cent. only, and the assured by delaying payment saves Re. 1-8 on interest. By offering a reduction of 2½ per cent. on the premium for annual payment, the assured gains at the cost of the office, because he receives Rs. 2-8 cash and the office can invest Rs. 97-8 only which together with interest comes to slightly less than Rs. 101-8. In other words, the office earns 1½ per cent. interest on the tabular rate. This implication of a reduction in premium at 2½ per cent. is apparently not understood by offices that offer it. It is likely that the savings made from loading for expenses may balance the loss but in itself it cannot be justified.

[1] The New India Assurance Company has recently amended its rules regarding reduction of premium for large policies. It is as follows:

As. 8	for a policy of	Rs. 5,000 to Rs. 10,000.
As. 12	,, ,,	Rs. 10,000 to Rs. 20,000.
Re. 1	,, ,,	Rs. 20,000 and over.

The third reduction in premium which is allowed by Indian companies and others working in India is for residence in healthy temperate climates outside India. It has become customary with practically all companies to offer a reduction of 10 per cent. on the tabular premium for the period of stay, calculated from the day of leaving any port in India till return. One company offers the above reduction to the assured proceeding to Europe or any other part of the world north of 33° North latitude or south of 30° South latitude for an unbroken period of not less than three months, but does not show the above condition in the policy. Whereas another company allows the same reduction if the assured proceeds to Europe and/or America north of 33° North latitude only. The condition appearing in the policy of this company reads as follows:

> "If the life assured proceeds to Europe or America, north of 33° North latitude, his premium will be temporarily reduced from the date of his leaving any port in India, Burma, Ceylon or farther east until the date of his return to any such port."

Due evidence is required in support of claim of such stay.

It is interesting to note that a part of India falls beyond 33° North latitude. There are several hill stations (within 33° North latitude) where a large number of people go in the summer. The India Government and also several Provincial Governments shift their summer headquarters to such places. But taking all things into consideration, it would seem desirable to treat India as a whole and no special reduction in premiums for stay in hill stations seems to be warranted. This, in fact, is the practice of Indian companies.

Companies now usually offer the benefit of a second payment equal to the sum assured in case of accidental death. This benefit is given to male lives engaged in non-hazardous occupations. The rate of extra premium ranges from Re. 1-8 per Rs. 1,000 to Rs. 2-8 per Rs. 1,000 of sum insured, and is decided upon the merit of each case by taking into consideration the exact nature of the occupation of the assured. Some companies make a further offer to pay twice the sum assured together with the amount normally payable for accidental death under certain circumstances for a slightly increased amount of extra premium.

It should be noted that this benefit under the policy is not obligatory on the part of the companies. They may refuse to extend

this privilege to any assured if they think fit to do so. The extra premium for this benefit is to be paid in full within the grace period after the due date, irrespective of the fact that ordinary premiums may be payable in more than one instalment, and even though the policy is continuing under automatic extension scheme. The benefit of an accidental death ceases if the extra premium is not received by the company within the scheduled time.[1] The assured has also the right to give up this benefit by non-payment of the extra premium without prejudice to the original contract of life assurance. Some companies offer this benefit up to the age of 60 years, while others restrict it to age 55 only. If the policy continues beyond these limits, no further accident premium is payable and the above protection ceases. For the above benefit, death must take place within three months of the accident and shall not be caused by suicide, attempted suicide, aviation, ballooning, riot, civil commotion, rebellion, war or by the assured committing any breach of the law. The endorsement runs as follows:

> "In consideration of the within assured having paid an additional premium of Rs. . . . . and on condition that there shall be duly paid to the company a similar sum every year up to age 60, it is hereby declared and agreed that if at any time when this policy is in force, the assured shall, before attaining age 60, sustain any bodily injury resulting solely and directly from accident caused by outward violent and visible means and such injury shall within three calendar months of its occurrence solely, directly and independently of all other causes, result in the death of the assured, then the company shall pay to his executors, administrators or assigns the sum of Rs. . . . . in addition to the sum which may become payable in terms of the within policy.
>
> Provided that the company shall not be liable herewith if the death of the assured shall be caused by suicide or shall take place whilst engaged in aviation or ballooning or whilst entering, leaving or being carried in any aircraft or balloon or shall be caused by any accident to any aircraft or balloon in which the assured is travelling, or directly or indirectly by war, invasion, riot, commotion, rebellion, or by the assured committing any breach of the law."

The benefit of "extended insurance" is sometimes known as "continued insurance". It provides insurance protection of the full amount of the policy for the maximum period possible, after a certain minimum number of annual premiums have been paid and

[1] The office practice of a company stated above has been modified since the beginning of 1940. The extra premium for accidental death benefit is also distributed over the instalments of the annual premium and is payable along with it and is subject to the same conditions and privileges as apply to the payment of the ordinary premiums.

the future premiums are desired to be stopped. The amount of the extended term insurance is the same as under the original policy, unless there is a loan outstanding against it, or there is addition of existing dividends on the date from which this benefit is to accrue.

The above benefit is provided by a few Indian companies. The practice of some is to receive in cash all loans and premiums advanced together with the interest and to pay the cash value of all existing bonuses up to the date from which the above benefit is to commence. The policy is, thereafter, suitably endorsed, converting it into a term policy and specifying the duration during which the full sum assured is payable in case of death only. Under the Whole Life policies nothing is payable after the expiry of the extended term and the contract comes to an end. But in the case of Endowment policies, the maximum period extended is limited to the date of maturity. Any cash value in excess of that required to cover the extended term is held to the credit of the policyholder and is paid only in case of survival to the date of maturity and this also is specified in the endorsements. This benefit has been recently introduced in India, and full advantage of it has not yet been taken by policyholders. A few suggestions, however, are made in connection with the above practice.

The condition of prepayment of loan or any outstanding premiums in cash is usually really deterrent to the extensive use of the above privilege. As a rule, when a person is unable to pay the premium he desires to avail himself of one of the above benefits and the prepayment of loan and outstanding premiums, therefore, prevents him from taking advantage of the above benefit. In such circumstances, where a loan is outstanding the following procedure may be helpful.

The outstanding policy loan and premiums should be deducted from *both* the sum assured under the term insurance, and the cash value available under the policy (as if no loan or premium is outstanding) applied as a net single premium. Similarly, if there is any bonus standing to the credit of the policy, the same should be added to the sum assured, and the cash value of such bonus added to the total cash value applied in purchasing the term insurance for the increased amount. The deduction of policy loan from the amount of the term insurance is suggested because a

policy loan is, in effect, a prepayment of part of the sum insured and the policyholder is not entitled to an amount of insurance which might result in the company's paying again to the extent of the loan amount a second time. If a policy loan was not deducted, persons on the point of death or in very bad health will be able to derive a further advantage by first borrowing a large loan and then taking extended term insurance under the policy for a short time. The loan, of course, must be deducted from the cash value since it is the net amount that would be payable in cash which is available to purchase the extended insurance. The effect of deducting the policy loan from both the cash value applied to purchase extended insurance and the sum assured under the policy (in determining the amount of term insurance) is to shorten the period of term insurance that can be obtained. This is so, because the deduction bears a much greater proportion to the cash value than to the sum insured under the policy. Similarly, where there are bonus additions, the period of term insurance will be increased, for the increase in the cash value is proportionately greater than the increase in the amount of insurance to be granted.

Another benefit which is widely granted in different forms is the compensation payable due to permanent disabilities. The granting of the above benefit is universal in the United States of America and a good deal of investigation has been made there into its different forms and their costs. This benefit has been introduced in this country. Every year new companies are adopting it. It is, however, still of the simple variety that was in vogue in the U.S.A. 20 years ago.

This practice commenced with the provision for waiver of premium in the event of total and permanent disability. Policies containing such a condition came into use in certain countries in Europe about the year 1880. A similar form of insurance was found among certain American fraternal orders about the same time. The first extension of this clause was made by the addition of a provision to pay the sum insured in equal instalments over a number of years, the first payment to be made one year after the commencement of disability. The residue of the sum assured, if any, is paid to the policyholder either on death or on maturity of the policy.

The enforcement of a valid claim under this clause (waiver of premium and advance payments) extinguishes all other rights,

options, values and benefits under the policy except in respect of bonuses already declared. The benefit is further restricted to a maximum aggregate limit of Rs. 15,000 for such advance payments under any and all policies upon the same life and usually not more than ten equal annual instalments are paid. Each instalment is one-tenth of the amount payable or bears the same proportion as the number of annual instalments can be paid under the policy till its maturity date. In case of a claim under such a policy or policies all the advance payments made are deducted from the amount payable. Proof of disability satisfactory to the company has to be provided upon blank forms furnished by the company, within ninety days after the happening of the disability, and subsequently, at the time of each annual advance payment, if required by the company. One condition which is binding on the assured is that any medical examiner of the company shall be allowed to examine the person of the assured in respect of any alleged disability in the manner and at the time the medical adviser may require.

Accidental injuries which independently of all other causes within ninety days from the happening of such accident, result in the irrecoverable loss of the entire sight of both eyes, or in the amputation of both entire feet at or above the ankles or in the amputation of one entire hand at or above the wrist and one entire foot at or above the ankle shall also constitute such disability.

It has been found that the bulk of the disability claims are caused by tuberculosis, insanity, paralysis and accidents. The principal causes of true, total and permanent disability by cause of disablement are illustrated in the table given below.[1]

Percentage of Disability by Cause

Cause	Total and Permanent Disability
Tuberculosis	39
Insanity	11
Accidents	4
Cancer, tumor, etc.	7
Non-mental diseases of the nervous system	3
Heart diseases	2
All others	34
	100

[1] The report of the committee of the Actuarial Society on Disability Experience (1926), quoted in "Life Insurance" by Maclean.

The figures cited above represent comparatively recent experience covering only a few years and, therefore, all within the select period of insurance following medical examination. Consequently certain sources of disablement which are more frequently operative in the middle and advanced ages such as rheumatism, apoplexy, paralysis and blindness did not find place among important causes. Heart disease, which is now an important agent of death, certainly accounts for more than 2 per cent. of the aggregate of permanent disabilities.

The financial importance of the various causes of disablement to the company depends not only on the frequency but also on the duration of disablement, i.e., period until death or recovery. The usual practice in India of considering the instalment payment as an advance part-payment of the sum assured reduces the value of the benefit considerably. For, in case of recovery, the total advances together with interest from the date of each such payment are to be returned and the future premiums are payable as usual. The company is not much of a loser, save to the extent of the premiums not received, and herein also it is partly compensated by the interest received on the instalments paid.

The cost of the disability insurance as described above is not much. The cost depends on the following three factors:

(1) The care taken in the initial selection of risk,
(2) the company's attitude in the admission of claims, and
(3) the steps taken to maintain an adequate supervision and review of admitted claims.

It is usual to restrict the above benefit to male lives only, who are assured at ordinary rates and are engaged in non-hazardous occupations. The additional hazard of disability arises due to the assured's occupation, his physical condition, adverse factors in his personal or family history, etc. In such cases either the policy is not issued or a slight extra is charged by the company.

The attitude of the company in regard to the admission of claims, i.e., whether it is liberal or otherwise in interpreting the terms of the policy, can make a considerable difference in the financial results of the business. Although two companies may have clauses written in almost the same terms, it does not follow that claims will be admitted in the same manner by both the companies. But the company must guard against too great liberality. Constant

pressure will be exercised not only by policyholders who believe, or profess to believe, themselves entitled to the disability benefits, but also by the company's field representatives who, for obvious reasons, desire the company to take the most liberal view possible in every case. Every claim must be closely scrutinised and satisfactory proofs of disablement according to the company's standards must be obtained. If claims are admitted and the benefits paid, which were not in fact covered by the premiums charged, the business will naturally have to be operated at a loss.

The third factor in the cost of disability benefits is the care taken to follow up and from time to time to review the admitted claims in order to determine whether total disability still existed. A very small proportion of recoveries are notified to the companies by the insured, and it is absolutely necessary to inspect claims periodically so that recoveries may be promptly noted and benefit payments terminated. If this is not done or if it is not properly done, the cost of the benefits will be greatly increased.

We have now practically come to the end of our study of policy conditions. We have to repeat that to do full justice to the problems, much greater space and attention is needed, more particularly at this juncture when every company has revised its conditions according to its interpretation of the Insurance Act of 1938. A few new conditions have appeared on the policies to conform with the requirements of the new Act. Amongst these, mention may be made of the provision for the election of policyholders' directors and to the system of nomination. The following is the actual wording of the clauses appearing on the back of a policy:

"Section 48 (1) of the Insurance Act, 1938, provides that not less than one-fourth of the whole number of the Directors of the company shall be persons having the prescribed qualifications and holding policies of life insurance issued by the company and shall be elected to the Board of Directors of the company in the prescribed manner by the holders of policies of life insurance issued by the company.

The qualifications of Directors prescribed in rule 13 of the Insurance Rules, 1939, as applicable to this company are as follows:—

(1) A person shall not be eligible for election as a director under sub-section (1) of section 48 of the Act unless

(*a*) he holds, otherwise than by way of assignment or transfer, one or more policies of life insurance issued by the company satisfying the following requirements:

(*i*) the policies shall be either Whole Life policies or Endowment Life insurance policies, and not encumbered in any way; and

(*ii*) the total sum assured by the policies, including any bonuses that may have attached to them before the date of election, is not less than Rs. 2,000; and

(*iii*) each of the policies shall have been in force for not less than three years; and

(*b*) he is not a director (other than an elected director of the company), manager, legal or technical adviser, managing agent, insurance agent or employee of any insurer or an employer of insurance agents.

(2) If at any date after election as a director, a person ceases to hold one or more policies of life insurance satisfying all the requirements specified in clause (*a*) above or begins to hold any disqualifying office or employment specified in clause (*b*) above, he shall forthwith cease to be an elected director of the company."

The second new condition regarding "nomination" is worded as follows:

"Under section 39 of the Insurance Act, 1938, the policyholder is entitled to nominate the person or persons to whom the policy money shall be paid in the event of his/her death and to change and cancel such nomination by an endorsement or will. A nomination should, unless it is incorporated in the text of the policy, be made at the back of the policy and should be sent to the company's Head Office at . . . . for registration. Nominations are registered free of charge and alterations and/or cancellations thereof at a fee of Re. 1 each."

The above clauses are self-explanatory and are intended to safeguard the interests of the policyholders. How far this object will be achieved by prohibiting election of persons engaged in insurance profession remains yet to be seen. Such elected directors, although they will be the representatives of life policyholders, will have control over the management of the other classes of business transacted by a composite insurance company. There does not appear to be any legal bar to the shareholders' directors being engaged in the insurance business in any capacity.[1]

The changes that have occurred in the policy conditions are numerous and they vary with different companies, and it is not possible to enumerate and to examine them here. We will briefly

[1] The Insurance Amendment Act of 1941 allows every policyholder the right to vote and to stand for the post of policyholders' director, while those whose policies are taken out in the preceding three months are disqualified as electors. The Amendment also provides that the assignment of a policy to the person who took out the policy shall not disqualify that person from being eligible for election as a director.

observe the comparative changes that have taken place in the policy conditions of at least one company.

Apart from the two new clauses just now quoted, the other conditions have been generally revised to remove any doubts which have been raised during the experience. As an example, we may cite the following addition to the disability benefit clause:

> "In case of Joint Life policies the full premium will be waived only in the event of total and permanent disablement of both the lives assured while half the amount of premium will be waived in the event of the total and permanent disablement of any one of the lives assured."

The aviation risk which ordinarily used to be covered if there was no immediate prospect of the insured taking to aviation, has now been excluded and the exclusion has been made in the military and naval risk clause.

The reduction in premium for annual payment has been revised and reduction in premium for half-yearly payments has been introduced and now included in the policy. It has also been made clear that in the calculation of premium any fraction of an anna will be counted as one anna. The altered wordings read as follows:

> "A rebate of 2 per cent. of the premium (exclusive of any extra premium) is allowed if the premium is paid annually, and of 1 per cent. if it is paid in half-yearly instalments. The quarterly instalment is one-fourth of the annual premium but an extra of one anna per rupee of the annual premium is charged if payments are made in monthly instalments."

> "When calculating the amount of premium fractions of an anna will be counted as one anna. All premiums are payable to the company in full."

The condition relating to the reduction in premium for stay in healthy climate has been brought under the heading of "payment of premiums" along with the condition above stated as also the conditions relating to the days of grace.

The indisputability clause, which in essence has been made a part of the Insurance Act, 1938, has now been deleted from the policy conditions as superfluous. Insurance companies are amongst the staunchest supporters of the indisputability clause. They, however, do not believe that any alteration due to correction of age at a later date comes within the scope of the indisputability clause as envisaged by the Insurance Act.[1] But as doubts have been raised

[1] The Insurance Amendment Act of 1941 has slightly altered the wording of section 45 and has added the following proviso which speaks for itself:

"Provided that nothing in this section shall prevent the insurer from calling for proof of age at any time if he is entitled to do so and no policy shall be deemed

by some to the contrary, the condition has been deleted. However, as a measure of safety, the following clause has been added to the condition relating to proof of age :

"If the age has been deliberately under-stated, the company reserves its rights under the Insurance Act, 1938."

From the above study of the conditions and privileges as offered in the prospectuses and mentioned in the policies, it would be generally clear that a thorough investigation is not possible as the policy conditions are altered at the convenience of the life offices. The following clause is invariably present in the prospectuses at the end of the description of the rules and regulations of the company's business in one form or another.

"The company reserves to itself the right to vary the terms of this prospectus or any conditions of its contracts without giving notice but without prejudice to existing contracts."

or

"Power is reserved to the Directors to regulate from time to time the terms and conditions of assurance without affecting existing assurances.

The foregoing is a synopsis only of the rules and regulations governing the company's business."

The above condition is desirable from the point of view of the offices, but the working of it may affect adversely the interests of the policyholders. Slight changes in rules and regulations of the prospectus may alter the conditions of the policies and with the passage of time the old conditions are forgotten. When the assured writes for some benefit under his policy, the replies are in accordance with the current rules then prevailing in the office and may not be beneficial to the policyholder. In rare cases only the policyholder cares to go minutely through the original conditions and claim the benefits. For example, the encouragement given for annual payments in the shape of rebates (say, 2½ per cent.) is mentioned in the prospectus but not in the policy. A policyholder who may have been paying his premiums other than in annual instalments desiring to pay annually, when the rebate may have been reduced to 1¼ per cent. or altogether withdrawn, will have no option but to accept the office decision. A similar and more vital case arises when a minimum percentage of surrender value is guaranteed in prospectuses but is not mentioned in policies. In such cases the office quotation

to be called in question merely because the terms of the policy are adjusted on subsequent proof that the age of the life was incorrectly stated in the proposal."

for all purposes is conclusive and binding. Moreover, apart from the above, the detailed surrender value or the period of extended term insurance is not mentioned in policies and the appropriate amount or period of extension is quoted on application. If the office makes alteration in the above to suit changing circumstances, the assured has no means by which he may find out whether he has been unfairly treated. In contrast to the above practice of Indian and most of the English offices, the practice of Canadian and other American companies is commendable in this respect. They print on the back of the policy the surrender value and the automatic extension period for each year of duration of the policy.[1]

In certain other cases the conditions are mentioned in the prospectus, but not repeated in the same terms in the policy. While the intention of the office is to be presumed to have been explanatory in the prospectus and to convey the exact extent of the benefit in the policy, it is possible that the extent of divergence may not be acceptable to an intending proposer, if he had known the difference. As no specimen policy is issued with the prospectuses to the policy-holders, they are not in a position to know whether they are fairly treated.

The policy is the instrument evidencing the contract of insurance and is wholly drawn by the office. The blanks in the schedule type of policies are filled in according to the proposal accepted by the office and the policies are forwarded to the assured, usually with a covering letter, which mentions among other things that the policy should be carefully scrutinised and that in case of an error or omission, the same should at once be returned for rectification. In spite of this, it is well known that few assured care to go through the whole of the policy conditions. They feel satisfied if the plan and the duration of the assurance as well as the premium payable are correct. But to a discriminating person, the choice of a company may become different if he had opportunity to go through the actual conditions of different companies before he made his proposal. A few of the leading companies do insert a specimen policy form in the prospectuses, and it would be desirable, in view of the great divergence in policy conditions, that

1 The Insurance Amendment Act of 1941 has made it obligatory to state in the policy the surrender value after the policy shall have been in force for three years.

THE LIFE INSURANCE COMPANY, LTD.

Incorporated in India
Established

CAPITAL
AUTHORIZED RS.
SUBSCRIBED ..
PAID UP ..

HEAD OFFICE:

Whereas THE LIFE INSURANCE COMPANY, LIMITED, hereinafter called the Company, has received a Proposal and Declaration for Assurance which Proposal and Declaration with the Statements contained and referred to therein the Proposer named in the Schedule hereto has agreed shall be the basis of this Assurance and has received the first premium for an Assurance of the amount and on the terms stated in the said Schedule

Now this Policy witnesseth that in consideration of the premium and on condition that there shall be duly paid to the Company the subsequent premiums as stipulated for in the said Schedule, the Company will pay at its Head Office the sum assured to the person or persons to whom the same is therein expressed to be payable upon proof to the satisfaction of the Directors of the Company of the happening of the event on which the sum assured is to become payable in terms of the Schedule hereto the title of the person or persons claiming and the correctness of the age of the life assured stated in the proposal if not previously admitted.

Provided always that this Policy shall be subject to the conditions and privileges and to the Memoranda, if any, hereupon endorsed so far as applicable which are to be deemed part of the Policy together with the following Schedule.

SCHEDULE

Policy No. and Risk Date	Table and Term	Sum Assured	Due Date and Mode of Payment	Premium Payable Rs As
Nominee under Sec 39 of the Insurance Act 1938				Date of Proposal Age stated in Proposal Date of Maturity Date of Last Payment Occupation
Proposer & Life Assured				

Class of Assurance	
Event on the happening of which sum assured payable	
To whom sum assured payable	
Period during which premium payable	
Dates when premium payable	
Special Provisions	

Signed and Sealed on behalf of The Life Insurance Company, Limited, this ______

day of ______ 19 __

Examined ______

Director.

Entered ______

General Manager.

this practice be universally adopted. One suggestion may be made here that the specimen copy should not be so small that it becomes difficult to read the conditions. Such specimen copies are not much helpful.

Also from the above discussion it will be seen that the prospectus is the original offer made by a company on the basis of which counter-offer in the shape of proposal is made and the policy evidences the closing particulars of the contract as agreed. As the company can contest a claim of alleged wrong information or mis-statements made in the proposal, similarly the policyholder has a right to challenge the scope and interpretation of a condition or benefit of a policy if it is not in consonance with the conditions of the prospectus at the time of the proposal. But copies of the prospectus are not issued with the policies because its importance has not been realised so far by policyholders and they have not cared to insist upon them. The office should issue the prospectuses with the policies and once the policyholders realise the benefits of such a practice it will not be long ere it becomes universal.

It is true that formerly the policy conditions were fewer in number, limited in their scope and strict in their interpretation. They are being modified universally to suit the changing needs of the times and extending practicable benefits. The later conditions apply to fresh participants and in some cases they are extended to old policyholders also. But the practices of companies differ. In one instance the interest charged on loan was $7\frac{1}{2}$ per cent. It was reduced to 6 per cent. for fresh participants only. It is well to remember that it is the contribution and sacrifice of the old policyholders that go to make a concern sound, and as a result of the working experience of the old policies the office is enabled to offer better terms. It is, therefore, in the fitness of things that such minor benefits may be granted to all policies. Similarly, reduction for annual premiums if decided subsequently should also be extended to the old policyholders.

CHAPTER X

Valuation and Surplus Distribution

WE have already seen that the acceptance of a level annual premium for a risk which generally continuously increases with time, requires the retention of the excess portion of the premium paid in the early years to make up the insufficiency of the level premium to meet the current risk at later periods. This phenomenon distinguishes life insurance from most other forms of insurance where the creation of reserves (except the reserves for the unexpired period of risk) springs from a desire to improve the security offered than from any theoretical requirements.

The purpose of periodical valuation is to find out the result of the working of the business from all aspects and to find out whether the premium factors differ from those contemplated at the time of premium calculation. It is a sort of stock-taking common to all business enterprises. But it has a peculiar distinction from others, i.e., its liabilities are discounted, based on the opinion and judgment of the valuing actuary who has to determine the future rates of mortality, interest and expenses which will be experienced in the future. Opinions are apt to differ and do differ and, therefore, we sometimes see two companies similarly situated assuming different bases for valuation, the result being that different amounts of surplus are disclosed. The selection of the valuation bases is certainly influenced by the practice and policy of the company concerned. A company may be very strict in the selection of lives and may prefer this to writing a larger volume of business, and consequently may assume a table indicating a lighter mortality. Another company may feel that it is in their interests to underwrite a large volume of business. Companies may also differ as to the expectation of the future interest rates, as well as the question of the percentage expense that may likely be incurred in future and, therefore, should be provided for.

The above variations may be seen in a valuation the purpose of which is to find out how much of the life fund is surplus and, therefore, available for distribution. Here the assumption is that a surplus is anticipated. When the valuation is done to determine whether a fund is solvent the bases assumed are influenced by a

different consideration. Here it is implied that probably the fund is insufficient. Therefore, in this case the business should be valued as a closed fund. The allowance for future expenses should be based on an estimate of what it will cost to run such a fund, and the office premiums less such an allowance should be valued. No reserve, direct or indirect, should be made for future bonuses, as these are not liabilities, but the appropriate reserves for the declared and vested bonuses should be made. Negative values must be excluded and where the guaranteed surrender values attach to the policies the reserve brought out should not be less than these values.

Coming now to the processes employed to find out the reserve, we find that they are four in number, as follows:

(1) Retrospective method,

(2) by means of prepared tables of policies,

(3) prospective method, and

(4) by an accumulative process from the liability of a previous valuation.[1]

In the first case the reserve is seen to be the accumulation of such portions of past premiums as were not required to meet current claims and expenses, the assumption being that full provision is already made in the premiums for expenses and the claims to be anticipated. The methods (2) and (4) are modifications of the above. In America the valuation done by process (2) is popular. Tables of policy reserves are fixed beforehand and the surplus is determined if the fund in hand after meeting all expenses and past claims exceeds the total reserve necessary for all the policies in force.

The prospective method of valuation is universally adopted in England and India. This has become necessary due to requirements of law, which calls for the values of the sums assured and bonuses separately from the values of the premiums in the Board of Trade Returns (Assurance Companies Act, 1909, Schedule IV) and under the Indian Life Assurance Companies Rules, Schedule IV. It is to be further observed that this method facilitates the declaration of bonuses and the determination of the cost of a given rate of bonus.

[1] *J. I. A.*, Vol. XXX, page 493, by Searle.

We will now discuss the Net Premium, Gross Premium, and the Bonus Reserve method of valuation respectively.

Net Premium Method of Valuation. This method began to gain popularity about a century ago. The characteristic of the Net Premium method of valuation is the fact that credit is taken for Net or Pure Premium, according to bases of interest and mortality used in valuation. If it should happen, as it often did in its early stage, that the valuation bases coincide with the office premium bases then it automatically sets aside the loading provided in the premiums for expenses, for it took credit only for the future net premiums payable. Moreover, this method rigidly excludes all negative values. With the passage of time, however, changes occurred.

Investigations into the rates of mortality were made and new tables were prepared. But this could not alter the office premiums payable under the policy fixed at the outset, although the premiums charged for the new policies were changed. Another important change, namely, the reduction in the rate of interest assumed in valuation came into existence partly because in this way it was convenient to make a proper reserve for the maintenance of the reversionary bonus and partly on account of an actual progressive fall in the rate of interest realised on the funds in hand. The result was that the table of mortality and the rate of interest on which the premiums were based differed appreciably from those employed in the valuation. The effect of the above was a choice between the two following courses, viz.,

(1) to have a net premium based on the actual assumptions employed in the valuation, or

(2) to depart from the strict Net Premium method.

The former method is preferred by a large number of English companies. The result is that the margin between the office premium and the net premium is reduced appreciably. This happens because the use of a lower rate of interest automatically increases the net premium in spite of the lower rate of mortality adopted.[1] It should, however, be remembered that the reserve brought out is larger so that there is no question of insufficient resources, this being due

[1] See Chapter VII, page 125.

to the artificially swollen margin necessary on the assumption of low rate of interest and this is entirely at the cost of loading for expenses. This means that if a full reserve under the Net Premium method is set up for the new policies, the heavy initial expenses made in connection with the same have to be provided for from other sources. This anomaly arises due to two reasons.

(1) High Net Premium to cover the cost of one year's death risk and the present value of the Net Premium reserve should the policy be in existence at the end of the year, and

(2) the uneven incidence of expenses which absorbs a large portion of the first year's premium.

The second factor would be a true strain if the first year's expenses together with the present value of the future renewal expenses were greater than the present value of expenses loading contained in the office premiums. After the heavy expenses during the first year of the policy, the future expenses are expected to be low and as ordinarily a constant loading is allowed in the valuation formula, a surplus is released on this account every year on the existing old policies which go to meet the strain of the new business.

Departure from the strict Net Premium method as explained above is made specially in America and Canada. The modified plans aim at setting up a reserve at the end of the first year at something less than full net premium reserve. In this connection the method sanctioned by the Canadian Insurance Act, 1910, is well worth attention.[1] There it is provided that in the case of all policies having a net premium at least equal to the whole-life net premium for the same age at entry, a deduction may be made for the first four years from the full net premium reserve. The deduction is the same for all classes of policy and for the first year is equal to the difference between the whole-life net premium and the net premium for one-year term assurance. For the second, third and fourth years the deductions are three-fourths, one-half and one-quarter respectively of the full deductions and at the end of the fifth year, the full net premium reserve must be made.

Gross Premium Method of Valuation. Under this method a portion of the actual office premium is only valued after a sufficient percentage is cast off therefrom to cover future expenses.

[1] Details in "Valuation and Surplus," by R. K. Lockhead.

Certain types of policies at the early stages appear to have a negative value, i.e., the new policies appear to be assets rather than liabilities. This may enable unscrupulous men to weaken the reserve by taking the negative values into account. This, of course, can be prevented by the exclusion of all negative values. The insurance law in our country requires the Consulting Actuary to state whether all negative values have been eliminated. Another danger spot of this system of valuation is that the percentage cast off the office premiums to cover future expenses may be inadequate. The result would be deficit in future on expense account which ultimately means lower profits and weak reserves.

Bonus Reserve Method of Valuation. This method is of recent origin. It was first adopted by Mr. J. P. Oakley and Palin Elderton in their valuation of the business of the Amicable Society in 1926. They argued that as the loading in the office premium includes a loading for bonus, the liability of a future basic rate of bonus should also be valued along with the sum assured payable. Although this idea contravenes the basic idea of bonus which is the profit resulting from the business, nevertheless it is a fact, that each company makes a special loading in the office premiums for a specific amount of reversionary bonus due to the public craze for high bonus. Hence the assumption of a *pro forma* liability of a basic future bonus appears to be reasonable.[1]

Without going into further details as to the merits of the different methods of valuation, we may say that the Net Premium method of valuation is certainly more popular, for the following reasons:—

(1) It automatically provides for a reserve of zero at entry and, therefore, avoids the necessity of testing for and elimination of negative values.

(2) The public considers that it connotes a particular high standard of strength.

(3) The absence of a really satisfactory alternative which could universally be adopted and yet facilitate comparison between companies.

[1] The United India Life Assurance Company is the first and only Indian company that has valued according to this method a section of its business, known as "Capitalised group" of policies which now forms a closed section. This has reference to their Valuation Report relating to the period ending December 1931.

It may be mentioned here that the Indian insurance companies generally adopt the Gross Premium method of valuation. The United India Life Assurance Company of Madras and the Hindusthan Co-operative Insurance Society of Calcutta seem to be amongst the first to adopt the Net Premium method of valuation.[1] This method was adopted by the United India Life Assurance Company of Madras to value their Without-profit policies and Prof. K. B. Madhava, their Consulting Actuary, said in the Valuation Report for the period ending 31st December 1931:

> "I think it is the first time in the annals of Indian Insurance when a company is considered strong enough to bear the stringency of such a method."

The stronger reserve necessary under a Net Premium method of valuation has been markedly emphasised by the Consulting Actuary, the late Mr. Louis E. Clinton, in his report on the quinquennial valuation of the Hindusthan Co-operative Insurance Society as at 30th April 1932. He said that the valuation done on the same basis as employed at the valuation of 1927 would have resulted in a surplus of Rs. 26,37,000. But the actual surplus under the Net Premium method of valuation came out at Rs. 18,97,000 or, in other words, the reserves were further strengthened under this system to the extent of Rs. 7,40,000. Comparing this to the valuation reserve of Rs. 99,63,000, we see that the total reserve was strengthened by about 7½ per cent.

The maintenance of a large reserve at the commencement of a policy under the system of net premium valuation is at the cost of profits, which are lessened, but with the passage of time the additional reserves further augmented by compound interest will appear in subsequent valuations and will be distributed as profits. This method restricts early payment of bonuses and brings out subsequently larger profits to old policyholders. There was a danger at one time that bonuses might be declared on too liberal a scale to attract increasing volume of new business, but the gradual and steady fall in interest rates, together with restrictions imposed on the investments of life fund, have compelled the companies to lower the rate of bonus. If the Net Premium method of valuation is

[1] It is likely that some other companies also employed the Net Premium method in earlier years. We find in the Indian Insurance Year Book, 1929, the following sentence in the report of the Government Actuary, ". . . . . but unfortunately this method (Net Premium method of valuation) is adopted in the case of only a few Indian companies" (page 14).

gradually adopted, the temptation to declare high rate of bonus will be kept under control. The rigidity of this method, leaving as it does nothing in effect to the individual judgment, is its chief virtue.

As previously stated, the Gross Premium method of valuation is adopted in the majority of cases in India. In its support it may be said that if all the negative values are eliminated and a sufficient percentage of office premium is thrown off, for future expenses, no theoretical objection can be raised against it. Further, the interest of a policyholder in an office is temporary and ceases with the determination of the policy. It is, therefore, an act of injustice to him if a part of the profit actually earned is not distributed, thereby depriving him of his share. No policyholder will be satisfied if he is told that the profit that has been withheld from him will improve the position at future distributions at which he may not participate. And this is exactly what happens under the Net Premium method of valuation. This position is further accentuated in the case of an office writing a correspondingly larger volume of new business than another. If the strict Net Premium method of valuation without any modification be adopted, it is clear that the available surplus for distribution will be greatly diminished and in extreme cases may vanish altogether. The Gross Premium method of valuation with safeguards, already mentioned, prevents this injustice and, therefore, is also commendable for use.

We shall now examine the details of valuations with special emphasis on those conditions which are met with in connection with Indian valuations. We have seen that by law a periodical valuation not extending beyond a maximum period of five years has been made compulsory in India as also in England and other countries. A large number of companies adopt the quinquennial period, while there are a few who value after every three years. There are none in India, as in England and other countries, who have adopted the system of annual valuation and submit reports accordingly. However, a few Indian companies value their businesses annually to find out whether they are solvent. Once they are satisfied, they adopt the usual longer period. The general tendency certainly is towards valuation of shorter duration because this enables the companies to measure the effects of their financial operation during the period. This, however, leads to

certain inconveniences. It requires devotion of quite a good deal of attention and time and, secondly, a company has got to be in a strong financial position so as to enable it to maintain its bonus rates in spite of a year's unfavourable operation. The longer period of valuation puts the company in a better position to measure the effects of its financial operations. Several companies adopt the latter system and at the same time do an internal annual valuation to see whether the business is carried on satisfactorily and also to enable them, immediately after the period relating to it, to declare the results of their regular valuations.

To overcome the difficulty of valuing each policy individually the system of grouping is adopted. This can only apply to the policies of the same class sufficiently large to produce groups of a reasonable size. The policies in a group should also possess, at the valuation date, at least one common characteristic required for their valuation, for example, the same attained age, the same unexpired term to run, or the same number of future annual premiums. Whole-life assurances can be valued at once if the attained age at the date of valuation is known. In the case of Endowment assurances, the attained age and the unexpired term are required to be given if the valuation factors are to be exactly calculated. As the period of assurance in an Endowment policy causes greater effect on reserve rather than the age of the assured, the policies are grouped according to their years of maturity and within such group approximate average value comprising several contiguous ages is made.

Several special reserves are set up to cover special requirements or to strengthen further the valuation reserve. We know that policies are taken out at all times throughout the year of operation of the company and, therefore, at the date of valuation we find that the ages of the assured are fractional and the duration elapsed since entry is not an exact number of years. The difficulty has been partially overcome by charging the premiums pertaining to age next birthday, but some companies prefer to set up a further special reserve fund. Similar is the position with regard to claims. Premiums are ordinarily calculated on the assumption that the claims arise at the end of complete years. For this ample provision is made in the valuation reserves by assuming a higher rate of mortality but, as before, some companies prefer to set up a further reserve for early payment of claims.

The valuation is made of the policies that are in force as on the date of valuation. But several policies that may be lapsed as on a valuation date may be subsequently revived under the rules of the company. Therefore, while there is actually no liability regarding these policies as on the valuation date, companies make an approximate reserve for this contingent liability also.

Similar reserve is created by offices to cover the difference between the guaranteed surrender values granted under the conditions of the policies and the actual amount of reserve held against them. The importance and the necessity of this reserve has been greatly increased under the Insurance Act of 1938 in India. Here provision has been made that within three months of the lapse of a policy, the company shall inform the policyholder of the options available to him.[1] Therefore, claims under surrenders and paid-up policies which formerly were put up in a fewer cases due to restriction of privileges and ignorance of the policy provision, would now increase substantially.[2]

A certain amount of office expense has to be incurred on Limited-payment policies after the premiums have ceased; also such participating policyholders continue to participate in profits till maturity. Therefore, some companies deem it essential that a reserve be made during the period when premiums are received and be retained to meet the expenses and to provide the profits till maturity.

Some companies grant to all their policyholders disability benefits as explained in the chapter on "Policy Conditions," without charging any extra premium. Necessarily, therefore, they have to set up special reserves to meet the claims that arise under this head. Companies doing extensive business over different countries sometimes have to issue policies in the currency of the country in which they operate. We have already pointed out, in the chapter on "Investment of Funds," that the reserve against such liability

[1] Section 50 reads:—"An insurer shall, before the expiry of three months from the date on which the premiums in respect of a policy of life insurance were payable, but not paid, give notice to the policyholder informing him of the options available to him."

[2] The Insurance Amendment Act of 1941 has added the following words to section 50: ......" unless these are set forth in the policy."

This relief is granted on account of the incessant demands of companies who complained of the practical difficulties and cost involved in intimating to policyholders the options available every time premiums went into arrears.

is held in the currency of the same country. But sometimes when it is not so and also where doubt exists as to the currency in which payments are to be made, a special exchange fluctuation reserve is made. We have also seen that the problem of business in foreign currency is not very acute for Indian companies and, therefore, this item of reserve does not appear in their balance-sheets. It may be noted here, as a matter of interest, that the balance-sheets of insurance companies transacting general business do have such a reserve.

Before we close this discussion on valuation, we will briefly refer again to the effect due to changing conditions of valuation. The choice of mortality tables is limited and defective in the sense that except the latest table of mortality based on the experience of the Oriental Government Security Life Assurance Company, no satisfactory mortality table of Indian lives of recent times exists for the purpose of valuations. From a reference to the earlier statement[1] it will be obvious that the tables in actual use are based on English experience and relate to the experience of a period all earlier than 1893. The rules under the law made for valuation insist that some published table of mortality be adopted, and thereby prevent an office from valuing its liabilities based on its own unpublished experience. Valuation based on the mortality experience of a Select Table is the correct method in theory and necessitates holding of a large reserve. But due to considerable increase in valuation work, consequent upon the use of this table, it is dropped in favour of the Aggregate Mortality Tables or the Truncated Mortality Tables. The last mentioned table brings out a reserve slightly less than that under the Select Table, but facilitates the valuation work.

The choice of interest rate in valuation is determined at its highest by the earning capacity of the fund and the minimum is determined by the policy of the company. Taking all things into consideration, the valuation rate of interest is usually assumed at the nearest quarter fraction and which is ordinarily about one per cent. less than the average rate earned on the mean fund.[2] Sometimes where the office is in favourable circumstances, such as earning a net rate of interest of, say, about 5 per cent., the choice of valuation interest is comparatively wide, say, between

1 See statement on page 80.

2 The statement on page 182 shows the number of companies assuming different rates of interest.

3 and 4 per cent. Also when the current rate of interest falls low and the fund appreciates, offices sometimes appropriate the appreciation against a reduction in the rate of interest assumed in the valuation. As a large volume of business in the portfolio of an office is of the Endowment type, the effect of changing the interest rate assumed has a far greater effect on bringing out of reserves than a change in the mortality tables. The effect of such changes in valuation is measured not by actually determining the surplus available at the different rates, but by measuring the effect of variations by what is known as model office valuation.[1] The bases that give the most suitable result are adopted in the valuation and the surplus determined is declared.

Rates of Interest Assumed in Valuations by Indian Companies

Years	PER CENT.										
	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4	$4\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{3}{4}$	5	$5\frac{1}{4}$	$5\frac{1}{2}$
1912 ..	2	..	4	1	..	..	..	..	..	..	..
1913 ..	1	..	2	1*	2	..	..	..	..	..	..
1914 ..	..	..	2	..	1	..	..	..	..	..	..
1915 ..	1	..	1	1	3	..	1	..	..	..	..
1916 ..	..	..	2	..	7	..	..	..	..	..	..
1917 ..	1	..	1	..	7	..	2	..	..	..	..
1918 ..	..	..	..	..	7	2†	2	..	..	..	..
1919 ..	..	..	..	..	5	..	1	..	..	..	..
1920 ..	1	..	..	..	2	..	..	..	2	..	2
1921 ..	..	..	..	..	3	1	3	..	3	..	..
1922 ..	1	..	1	..	2	..	3	..	2	..	..
1923 ..	..	..	..	..	2	..	4	..	2	..	..
1924 ..	..	..	..	1	4	..	3	..	2	..	..
1925 ..	..	..	..	..	2	..	2	1	3	..	..
1926 ..	..	..	..	..	3	1	5	2	2	..	..
1927 ..	1	..	2	1	2	..	2	1	1	..	..
1928 ..	..	..	..	..	1	1	3	..	2	..	..
1929 ..	..	..	..	..	6	..	6	..	1	..	..
1930 ..	..	..	..	1	2	..	4	..	3	..	..
1931 ..	..	..	..	..	1	..	2	..	8	..	1
1932 ..	..	..	3	..	3	2	5	..	4	..	..
1933 ..	..	..	1	1	3	..	6	..	4	..	1
1934 ..	1	..	2	1	4	3	6	1	..	3	..
1935 ..	..	..	2	..	10	..	5	1	2	..	..
1936 ..	..	1	..	..	7	4	10	..	4	..	..
1937 ..	..	1	2	..	13	4	13	..	8	..	..
1938 ..	..	1	3	1	16	2	9	..	5	..	..

* $3\frac{7}{8}$ per cent. † One is $4\frac{1}{8}$ per cent.

1 "Valuation and Surplus," by R. K. Lockhead.

After a valuation is over, the surplus or deficit is known. In case of deficit, if it is covered by the capital already called, the business is continued; if it falls short of the latter, the subscribed capital is called up to meet the balance. In cases where the deficit cannot be covered in this way, the company has to go into liquidation. The surplus is usually divided in a fixed proportion between the shareholders and the participating policyholders after making minor reserves to meet contingencies. The proportion in a proprietary company is usually 10 per cent. for shareholders and 90 per cent. for policyholders. In some cases the shareholders receive even a smaller proportion.

Thus having ascertained the amount divisible amongst the participating policyholders, the company has to see to the problem of its equitable distribution amongst the policyholders. The method by which the distribution is made takes into consideration the following principles:

Equity. As far as possible, the cash surplus allotted to each policy during its currency should be in proportion to the amount contributed by it to the profits. Policies are often discontinued and surrendered, claims arise and, therefore, the distribution during each period of valuation should be such that no one class of policyholders gains unduly at the cost of the other class.

Simplicity. The system adopted should be simple so that it can be easily understood by the layman and must be readily adaptable to changes in the conditions that may be experienced in future. As the method of distribution cannot be altered from one valuation period to another without doing great injustice to certain classes of policyholders, if the premium charged remains constant it is, therefore, desirable to modify the premiums for the new policies, the valuation of the existing policies being made as a "closed series". It is, therefore, obvious that a particular bonus system should be considered when the principles, upon which premiums for participating policies are to be based, are being determined for a company and should also be remembered when the valuation bases are to be determined.

To make any method of distribution popular, it should conform to the taste of the public, who desire an increase in reversionary bonus with age and duration of policies. This involves an increase

in the cash surplus that has to be allotted to any particular policy at successive distributions. All the above considerations are generally kept in view, but sometimes one consideration has to be sacrificed in favour of another. For example, a system that is simple and popular may not be equitable.

All the Indian companies adopt the "Simple reversionary bonus" method except the United India Life Assurance Company which adopted a modified form of Compound reversionary method.[1]

The reversionary bonus allotted is declared as a percentage per annum on the sum assured only, or on the sum assured and the existing bonus additions, for the number of years policies have been in force during the valuation period. If the bonus is allotted on the sum assured alone, it is termed "Simple reversionary bonus," if on the sum assured and the existing bonuses, it is known as "Compound reversionary bonus." The modified form of compound reversionary bonus adopted by the abovementioned Indian company is that they allot a simple reversionary bonus on the sum assured and add to it 12½ per cent. of bonuses declared at preceding valuations and subsisting on the day of valuation (31st December 1931). The compound reversionary method is more complicated than the simple reversionary method. It requires a greater reserve, and under this system more benefit accrues to the older policies. This is quite equitable for it is the yield on the heavy reserves under the old policies which mainly contributes the interest profits. Further, the simple reversionary system simply ignores the contributions made to the profits by the surplus interest on the reserves held against the bonuses already declared.

The above two methods are popular with the English companies working in India and most of them use the one or the other, though there is a distinct preference for the compound reversionary system.

A few British companies,[2] however, as also all other foreign (non-British) companies (except the Great Eastern Life Assurance Company and the Winterthur Swiss Life Insurance Company) adopt the "contribution" method. The details of this method

1 A simple reversionary bonus of Rs. 22-8 per thousand per annum for Whole Life and Rs. 18 per thousand per annum for Endowment was declared for the quinquennial period. A further addition of 12½ per cent. on all existing bonus and subsisting on the valuation date was the additional feature (Valuation 1931).

2 The Yorkshire Insurance Company uses a special method.

vary from company to company, but the object kept in view is to distribute to each individual policy a share of the divisible surplus proportionate to the amount actually contributed by it to the profits during the valuation period. Theoretically, this method seems to be more equitable than the reversionary method, but in practice it is cumbersome and involves a great amount of labour. It is difficult to explain to the public who can much more readily understand a system in which the bonus bears a direct relation to the sum assured or the premiums paid. It should, however, be noted that the effect of selection of valuation basis sometimes tends to produce somewhat irregular results in certain cases. If there is a wide margin between the rate of interest earned and that assumed, there will appear a large surplus to be divided among the policies of comparatively long duration, while, on the other hand, the incidence of a heavy rate of mortality will considerably diminish the surplus allotted to the younger policies. Generally, the younger policies as a class will suffer, and while it is not altogether unreasonable, the possible effect on new business has to be considered.

The contribution method assumes three forms in practice, viz.,

1. "Sheppard Homan's Method."
2. "Dr. Sprague's Method."
3. "Browne's Method."

Each of the three has its special features and its distinctive use.[1]

There are a few more systems of bonus distribution, amongst them being the "Tontine system" and "Deferred bonus system", which are of academic interest to the Indian insurance world. In fact, the above systems have greatly fallen into disuse and, so far as the "Tontine system" is concerned, it is of historical interest even in America where it was once very popular.

Until 1910 the interval between successive distribution of profits was not fixed and varied greatly with different companies. But under the Insurance Companies Act of 1912, the maximum period allowed to elapse between two successive valuations was fixed at five years and this continues to be the most favoured interval. A few companies have adopted a triennial system of valuation.

[1] For the details of each method, see the Life Assurance Text Book, by R. C. Simmonds, pages 167-69, published in 1929.

In theory, the shorter period of valuation has much to commend itself, and in case of an annual valuation and distribution of profits, the position of the company must be sufficiently strong to eliminate, in normal circumstances, any risk of fluctuations in the bonuses. That is, a substantial bonus reserve fund must be created to even out undue fluctuations in bonus from year to year. This means that, other things being equal, greater proportion of surplus can be declared as bonus in companies with longer duration of valuations. The second objection to shorter period of valuations is the labour and expense involved, and this factor itself becomes responsible for the reduction of surplus.

The objections to longer period valuations have been fairly met by the adoption of the system of "interim bonus". Before its introduction the companies did not pay any bonus between two successive periods of valuations even if a claim arose by maturity or death under a policy which otherwise had participated in previous valuations. This was certainly a hardship and rightly resented by policyholders. The practice of offices differs in allotting the interim bonus; some pay only a proportion of that declared at the previous valuation, while others allow the full bonus last declared. The latter practice is now being universally accepted.[1]

The declaration of bonus is generally done by Indian companies according to the reversionary system, as already noted. Some companies allow cash values of the bonus and as an alternative allow reductions in future premium payments. The values of such reductions can be ascertained by application to the offices. This varies among companies. Except in the case of a claim arising due to death, the "vesting of the bonus" is subject to restrictions. The assured cannot deal with the bonus declared until a certain fixed period has lapsed; this period varies between two and five years in different companies. The object of placing this restriction is to enable the office to recoup its expenses incurred in underwriting the policy, which is very heavy in the first year, and to allow the policy to acquire a surrender value, which usually takes two to three years. But public opinion is against this delay in vesting of bonus, and rightly too. For, the first year's heavy expenses, which are advanced as a reason for the postponement, are already

[1] The Empire of India declares interim bonus at a higher rate.

provided for in the premium, and while it is true that a new policy does not immediately show a profit to the company, it is nevertheless a prospective source of income. The above arguments have begun telling on the practice of Indian companies and companies now permit the vesting of bonus in all policies immediately it is declared. This satisfies the public, and as it is only in very few cases that death occurs in the early years of entry, the extent of such bonus additions is insignificant and does not seriously affect the total bonus additions to older policies.

We will discuss the problem of selection, retention and re-insurance of lives in the next chapter.

CHAPTER XI

The Problem of Selection, Retention and Re-insurance

"ACCEPTANCE" of lives for life assurance is of paramount importance to life companies. The selection is based on certain minimum standards arrived at by experience which must be attained by persons desirous of effecting insurance. This restriction is necessary; otherwise a very large proportion of the applications for insurance would be from persons who, for one reason or other, expected to make a profit from such a transaction. The problem has acquired great importance; for there is a tremendous increase in the inflow of new business due to a great appreciation of the benefits of life insurance by the public and also because of the scramble for business by companies. This latter factor is considered to have led to a relaxation of the rigid standards of selection which prevailed in the past. As Mr. Young says[1]: ". . . . In the primitive history of assurance the process of selection was exceedingly simple; no medical test at entry was imposed, the medical attendant being merely questioned by letter if the applicant possessed one, the proposer appeared before the Board of Directors and was subjected to verbal enquiries of any and every kind. This method was efficient at that early stage since (1) companies were not, as unhappily they are at present, inordinately eager for new business; admission into an insurance institution was regarded as a privilege conceded by the company rather than a favour urgently desired by the public, (2) the applicant was introduced by responsible persons whose character and position constituted a kind of voucher for his respectability and fitness, (3) the absence of the existing demand for an extensive amount of business afforded a diminished scope and opportunity for hasty acceptances and fraud, and (4) the system of assurance was then more limited in its range and was confined largely to the superior classes in life and social circumstances, with the attendant advantages of longevity." This was also the situation in the early stages of insurance in India.

The prejudice against life insurance due to ignorance and religious feeling was very strong among the general public. Life

[1] "Insurance" by T. E. Young (page 78), published in 1927.

insurance, therefore, was confined to the economically better off classes which were able to appreciate its benefits and were not subject to the prevalent prejudices.

To-day, however, the whole business of selection is well organised. A life is accepted only after the company has received and carefully examined the following:

(1) Completed Proposal.

(2) Agent's Report.

(3) Private Referee's Report.

(4) Medical Examiner's Report.[1]

Most companies issue manuals of instructions to agents to enable them to understand the business of insurance and their work as agents. Therein agents are instructed to exercise great care in soliciting proposals and to approach only those persons who are likely to be eligible for insurance by the company. It is, however, not possible for an agent to determine whether a proposer would pass the medical examination satisfactorily or not, but he is instructed to avoid persons who are very thin or very stout, who have any physical deformity or abnormality or who have unsatisfactory family history. In case of doubt about the eligibility of a proposer the agent is instructed to submit particulars of the life to the Head Office which would instruct him whether to proceed with the case or not. Agents are usually further instructed not to solicit proposals on the lives of minors, illiterates not known personally to them, persons beyond a certain age, say 55, or persons whose lives have been rejected previously by any other company. In the case of a proposal received from a person belonging to any of the above classes, but whom the agent might on other considerations consider eligible for insurance, he has got to submit full information to the Head Office to obtain sanction for medical examination. In case of lives previously rejected by any company, the ordinary procedure is to demand a deposit of the medical fee which is refunded only if a policy results. Some companies which grant policies on female lives, issue special instructions regarding them. Failure to observe the above instructions makes the agent liable for the medical fee and other preliminary expenses incurred by the company. The extent to which a company can rely on its

[1] Specimen form is given in Appendix VIII.

agent regarding selection of lives is a very important factor, for in most cases he is the only person connected with the company who has personal knowledge of the applicant. The value of the selection depends, of course, on the character and reliability of the individual agent. As the agent is remunerated on the amount of insurance he secures, it is seldom that he misses an opportunity to forward an application that has a chance of resulting in a policy and not making him liable for the medical fees.

The Proposal Form duly completed gives the particulars necessary to identify the applicant, e.g., his name, occupation, his father's name, address, present and permanent residence, if any, and place and date of birth. It also indicates the plan and terms under which insurance cover is required, and how the premium will be paid and also whether any advance has been deposited towards the first premium. Further questions elucidate whether the proposer has in the past been out of the country, changed his occupation or has at the present time any intention of going abroad (if so, where and for how long), to change his occupation or engage in naval or military service or in aviation. The family history of the proposer is required in a tabular form, and questions relating to personal habits such as use of alcoholic drinks, tobacco or other intoxicants, are asked. Again, information regarding the nature and date of any illness or personal injury suffered by the proposer, especially during the five years immediately preceding, and the names and addresses of the medical men consulted, is called for, as also complete previous insurance history, including any pending proposal.

Names of two intimate friends (not related and not interested in the proposed insurance) who have at least known the proposer for two years are required so that the company may refer to them regarding the health and other relevant particulars of the proposer.

The Medical Report form is divided into two sections—the first requires replies to questions regarding the applicant's identity, personal history of illnesses, diseases, injuries, etc., his habits regarding use of liquor or other intoxicants, his environments such as staying together with persons known or suspected to be suffering from tuberculosis. Some offices require the family history in this statement and not in the proposal, as stated above. The second

part consists of questions to be answered by the medical examiner regarding the physical condition of the proposer and the results of examination of heart, urine, blood pressure, etc., and the recommendation of the examiner on the insurability of the applicant.

The Agent's Report and the Friends' Report (or the Private Referees' Report, as it is sometimes called) were at one time supposed to elicit confidential information regarding the applicant, more especially regarding his personal history, habits and mode of living and financial condition so as to minimise the moral hazard of the company involved in selecting his life. But they have been found to-day to be inadequate, for, a person who has an intention to cheat a company, will be careful in giving the names of referees who will not disclose his real condition. As no responsibility attaches to the referees for giving replies to the best of their knowledge, it is difficult to rely on their reports, which are often very euphemistic. Some companies have, therefore, done away with the Friends' Report and others with the Agent's Report too. Many require a statement from the agent, inserted at the end of the Proposal Form, as to how he secured the application and whether he considered it a fit case for acceptance.

The company, after carefully scrutinising these various reports, bases its selection of the life proposed upon (1) age of the proponent, (2) his build, (3) the result of the medical examination and his family history, (4) his habits and environments, and (5) his occupation. We shall now discuss these factors individually.

Age. The age of the applicant is very important, since the amount of premium depends upon it. It is, however, not customary to require proof of age at the time a policy is issued.[1] Usually a policy contains an indisputability clause regarding statements made so that a policy becomes indisputable on those grounds, unless the company shows that such statement was on a material matter and fraudulently made by the policyholder and that the policyholder knew at the time of making it that the statement was false. The above condition has been incorporated in the Indian Insurance Act and it is now contended that an office must satisfy itself regarding

[1] The treatment of variations in age subsequently found out has been dealt with in a previous chapter, pages 137-38.

a proponent's age before it issues the policy; otherwise it will be precluded from contesting any claim. If the above interpretation is upheld by a court of law, which seems to be extremely doubtful, it would affect the practice of all companies and there will even appear a falling off of new business due to unwillingness on the part of companies to consider proposals not accompanied by age-proof, and such proposals are by no means few at the present time.[1]

Build. The height and chest measurement of a proponent is of the greatest importance in selection. In fact, build might be called the basis of selection. All companies expect their medical examiners to take careful measurements of the proponent. Each company has standard tables of heights, weights and chest measurements for the use of their examiners. The tables indicate the maximum, minimum and the average weight of persons in different age-groups and possessing different heights. Generally speaking, persons much above the average weight at advanced ages, say, 35 and beyond, and persons much below the average at lower ages, are not good risks. But the treatment of such cases is also influenced by the family history and the occupation. A person engaged in a healthy outdoor occupation and leading an active life may be overweight, according to the standard, and yet be a satisfactory life for acceptance. Such cases are not few and the presence of an adverse feature is sometimes more than counteracted by favourable elements of a different kind. Thus, we see, that in selecting lives for assurance, expert judgment and the ability to assess the value of a combination of many complex circumstances are necessary.

Tables of height and weight and normal chest measurement adopted for use by an Indian company are given in Appendix IX. It may be mentioned here that most standard tables of height and weight show the average weight of a large number of persons. This is not the same thing as best weight, i.e., the weight at which the lowest mortality is found. Generally, the best weight is slightly above the average weight at low ages and slightly below it at higher ages. The standard tables of America generally show the best weights instead of the average weights.

[1] The Insurance Amendment Act of 1941 allows the age to be admitted after a policy is issued.

Medical Examination and Family History. The medical aspect of the condition of heart, lungs and other organs of the body is purely a matter for the medical referees.

A few observations may, however, be made here. Some companies now insist upon a blood pressure examination of all proponents, while others restrict it to those who apply for big policies of, say, Rs. 5,000, or desire to have additional policies to make a total greater than the above or are beyond a certain age, say, 40 years. Changes of practice based upon modern doctrines have also altered materially the character of medical and surgical deductions of remote years. Thus, views on the duration and effect of a previous illness suffered or an accident met with have changed considerably, and percentages of medical impairment due to a defect in the system are revised. Medical investigations have also modified the earlier conclusions about the influence of heredity. A person descended from a consumptive stock, if isolated from early years from the company of infected persons, is now not a bad case for insurance.

Habits and Environments. It is not only necessary for a person to pass the above-mentioned medical tests to get assurance, but he must also be able to satisfy the company regarding his habits and environments. Companies also desire to be satisfied regarding the finances of the person when a large insurance cover is desired or the total insurance cover already existing seems to be excessive. The above precaution is taken to eliminate moral hazards. It is an established fact that over-insurance is a distinct additional hazard and, therefore, companies are always on their guard to prevent the issue of more insurance than is justified by the circumstances of each case. To arrive at a correct conclusion regarding the effect of finance, it would be necessary to know the approximate amount of income, the sources of income, the probability of increase or decrease in earning power, other resources in property, record of bank accounts and reputation and character of the proponent. As complete information regarding all these items is seldom obtained, companies are satisfied if the premium payable is a modest percentage of the total income, and for people with smaller incomes the percentage is increased. This is because people with small incomes have proportionately larger living expenses.

The habits of the applicant, his mode of life and reputation in general also influence selection. Big insurances from people who use alcoholic beverages in large quantities and have doubtful social environment must arouse immediate suspicion even though there be no medical impairment.

Occupation. Proposals from professional men, bankers, commercial travellers, members of the mercantile community, civil and electrical engineers (whose duties are supervisory), planters and master tradesmen (working at non-hazardous business), if otherwise satisfactory, are accepted at ordinary rates. But the treatment of proposals when they come from healthy lives whose occupations are considered hazardous, varies with different companies. The problem has been dealt with at length in the chapter on "Policy Conditions," not only from the point of view of hazard and the suitable extra premium needed by the company to cover it, but also from that of the opportunity of the insured to increase the moral hazard. An occupation becomes hazardous for two reasons:

(1) if chances of accident, fatal and otherwise, are more, and

(2) if, as with work in mines, it results in diseases.

Unfavourable climatic conditions at the place of work may sometimes increase the risk.

We will now note the influence on selection of persons employed in the liquor industry and aviation. It has been the experience of insurance companies that persons employed in the liquor trade, whether it be in the manufacture of alcoholic beverages such as breweries, distilleries, etc., or in its distribution and sale as in stores, bars and hotels, all show an increased mortality in excess of the average. Offices charge varying extras for different sections of the liquor trade, the maximum being for persons who sell opened liquor in shops and bars. The introduction of partial prohibition in different Provinces in India brings up the question whether persons once employed in the trade should continue to pay the extras if total prohibition comes into force. The extras were imposed when the liquor trade was in full swing and the persons employed were assumed to be in the trade. But now that the situation has changed, any request from such assured for removing the imposition of such extras cannot be considered as unwarranted. But taking all things into consideration, it seems that

offices would be reluctant to remove the extras, for taken as a group such persons would still continue to be inferior lives.

Recently, aviation has grown rapidly in our country. But Indian companies have already taken lessons from the experience of sister associations in other countries and their treatment of the subject is quite up to date. They allow an occupation-free policy if the proposer is not occupied in the aviation industry and has no intention of engaging in it. Commercial flights and pleasure trips as fare-paying passengers over recognised air routes are allowed free of charge to all policyholders. Persons who are engaged in the industry but are not required to go up in the air, are charged a lower extra than those who have to go up occasionally and others who have to pilot planes. The extra payable is usually restricted to the first five years of the policy. Persons who are engaged in the aviation industry and are not agreeable to pay the appropriate aviation extra may be granted policies excluding the aviation risk, that is, in case of death resulting directly or indirectly from aviation, the surrender value only would be payable. But some offices consider it better to refuse to issue policies with an exclusion clause rather than have to face public criticism in case surrender value alone is paid in the case of death arising out of an accident in aviation.

The problem of residential or climatic extra is not very acute in India; for no variations are made in the premiums charged to people belonging to different parts of the country.

Insurance at High and Low Ages. The bulk of insurance business in India is underwritten on the lives of persons between the ages of 25 and 55. The proportion of business written for those below the lower or above the upper age is very small. So far as low age is concerned, there is not much demand for life insurance. Companies also do not quote premiums in their prospectuses for persons below age 20 next birthday. Some companies, however, have been accepting proposals on the lives of minors aged 16, 17 and 18 years next birthday, subject to the condition that in the event of death before attaining the legal age the amount payable will be only the total premiums paid. But with the enforcement of the new Insurance Act, it is extremely doubtful whether the practice of the few companies accepting proposals from minors with a condition attached as above will be

continued. The rules require that companies must publish all their rates at all ages at which they desire to accept lives and this certainly cannot be lower than the legal age of 19 next birthday. It would be a help to insurance companies and an encouragement to the spread of the insurance idea if the age for contract could be lowered to, say, 16 years next birthday. This modification of the general law of contract would meet the special requirements of life insurance.[1] From a practical viewpoint it may appear that there is hardly any real insurable interest, but such policies would certainly meet a legitimate demand.

At higher ages, say, beyond 55 or 60, the need for insurance has, in many cases, ceased. A large percentage of persons at advanced ages are ineligible, due to physical defects, and amongst the remaining, many are fully insured. It is, therefore, not surprising that comparatively few applications for insurance are made even at the higher ages at which companies underwrite. The selection of lives at extreme ages where the proposals are few, has to be done with greater care; for in all probability these lives will not give dependable average results. At younger ages there would be savings in claims due to lighter mortality. But if the premiums charged are adequate and a sufficient volume of business is obtained, insurance of persons in advanced ages too could be made paying. Average results at every age of issue are not always obtained. So this argument should not be advanced against issue of policies to persons at very high ages. On one point in particular, companies should satisfy themselves in selecting lives at extreme ages, and that is, that there is a legitimate reason for insurance of the amount applied for. If the company thinks that an attempt is being made to over-insure, the proposal should be declined outright.

Insurance of Ladies. The problem of insurance of ladies who are earning their own livelihood, is slowly becoming important in India. Special mortality experiences have been taken out for them in other countries. It has been observed that from about the age of 15 upto about 45, females exhibit a higher rate of mortality than that prevailing amongst males, the reason being the extra risks of child-bearing and its sequels. After the age of 45, females exhibit a lighter mortality at each age than that experienced by

[1] In the State of New York a valid insurance contract may be made with a person 15 years of age—"Life Insurance," by Maclean, page 210.

males, and live longer too. Their mortality becomes so light compared to that of males that when the expectation of lives for females is calculated it becomes higher than that for all ages in the case of males. This raises the issue why insurance companies discriminate against female lives. But expectation of lives is no guide to calculation of premiums.[1] Any calculation based thereon is, therefore, likely to be erroneous. Mr. Young says:

> "An assurance company many years ago, regarding only the complete comparison between the two sexes, and omitting to observe the altered condition which was exhibited at earlier periods of age, accepted females at reduced premiums. Assurances are, however, usually effected prior to the age of 50, and an unhappy experience speedily compelled the abandonment of the plan."[2]

In India, the mortality experience of female assured has not been published so far, but there is no reason to believe that the general experience would be different. Some companies, who until a few years ago were accepting female lives on the same terms as males or with a slight extra, have now fallen in line with the other companies and do not encourage female business. They accept insurance on the female life only after careful enquiry and after obtaining a special medical report form duly completed. Proposals are accepted from those ladies who are able to read and write, who do not observe *purdah* and are ordinarily not below the age of 21. If single or widow, they must have independent means of income from service or from commercial pursuits. The policies are generally restricted to those types in which the premiums are payable for not more than 20 years. Moreover, an extra premium has to be paid by the assured till she reaches the age of 50, at the rate of Rs. 7-8 per year per Rs. 1,000, if she is below the age of 25 at the time she takes out the policy, and Rs. 5 if her age is 25 or more. In the case of Joint Life assurance, all the above conditions apply to the married lady, and in addition the following conditions also apply. The lady must have had at least one full-time childbirth, and must not be pregnant at the time of insurance, and a constant lien of Rs. 500 for every Rs. 1,000 assurance, is imposed for five years. The above represents the general practice of Indian insurance companies with regard to the treatment of female lives. A few companies adopt slightly different methods.

1 See expectation of lives in the chapter on "Mortality."

2 "Insurance," by T. E. Young, page 85.

The above extras keep away many a prospective lady from insurance. With the special knowledge regarding female complaints that is now available, the special risks pertaining to female lives are fast disappearing. It will be in the fitness of things that not only the mortality experience of ladies should be found out from the existing data in the hands of companies, but the causes of their death should also be properly analysed. If the causes can be removed or lessened by medical attention in proper time, policies at properly adjusted rates should be issued to those ladies who do take advantage of such medical aid.

Insurance of Sub-standard Lives. An insurance company, in general terms, is a homogeneous body of members and the business is carried on based upon average results. But in the collective group of the assured the mortality experience is not constant at every age-group. Some groups show a high mortality while others record a light one. This had emboldened companies to extend the benefit of insurance to groups of lives believed to be sub-standard risks or under-average risks. It should, however, be clearly understood that the extra hazard that arises from occupation, history of personal diseases, physical condition, habits, history of diseases in the family and/or lack of vitality, is measurable and can be provided against with a certain degree of accuracy to enable the insurance company to consider the sub-standard group as at par with the normal body of assured. This has been possible due to investigations made into experiences of different companies.

In India some companies have taken out rough experiences of sub-standard lives but none has as yet published them. Sub-standard lives in this country are treated, however, on the basis of the published experience in foreign countries.

In theory, no life is uninsurable except that of persons suffering from mortal diseases; but in practice many groups of persons are unable to obtain insurance.

Like the treatment of lives in ordinary insurance, treatment of the sub-standard lives is also based upon the idea of a group. All calculations are based upon the average experience of a large number of sub-standard lives. The methods of dealing with sub-standard lives vary with the incidence of extra risks borne, namely, the extra claim expected to occur in early life, middle or

old age. In other words, the treatment and determination of the proper method of rating depends upon the knowledge of how the extra mortality is likely to be distributed. The additional number of deaths is a measure of the extra hazard for that particular risk. For example, in tuberculosis the majority of extra deaths occur among the younger members of the group which diminishes with increasing age.

For practical purposes every sub-standard life may be considered to belong to one of the following three broad groups:

(1) the additional hazard approximately constant at all ages,
(2) the additional hazard increasing with age, and
(3) the additional hazard decreasing with age.

There is another type of impairment in which the extra hazard increases for a time and later on decreases; overweight is usually considered to be an increasing extra risk in early ages and ceases to be so at advanced ages. The practical treatment of sub-standard applicants is usually done in one of the following ways:

(1) to grant insurance at the rate of premium applicable to a higher age,
(2) to charge an extra premium of a fixed amount, and
(3) to offer a lien policy.

When a policy is issued at a rate of premium applicable to a higher age than the real age, the assumption involved is that the mortality expected is equivalent to that of a person at the higher age.

The following table shows the normal rate of mortality and the rate of mortality rated up with a loading of five years at several ages:

Age attained	*Normal rate of mortality*	*Rate of mortality rated up by 5 years*
20	.00420	.00428
30	.00465	.00552
40	.00768	.01176
50	.01864	.02903
60	.04285	.06039

The above table is based upon the graduated rates of ultimate mortality (1925-35) of the policyholders of the Oriental Government Security Life Assurance Company.[1]

[1] For the original table, please see chapter on "Mortality," page 84.

An examination of these figures shows that the extra mortality for which provision is made increases rapidly with the term of a policy to be issued, also the same loading results in increasing provision for extra deaths when the age at issue of the policy is higher.

This method of loading is most prevalent, because it is easily understood by the public. But the full effect of this rating up is better seen under a long duration of a policy. In case of Endowment policies where insurance is terminated in a fixed number of years and especially where the policy matures at an early age, the amount of extra mortality provided by rating up in age is very small. Ordinarily the rating up method allows policies so issued to carry correspondingly higher surrender values and cash values, but the practice with some companies is to restrict such benefits of surrender and cash value to those available under the true age at issue.

The second method of charging an extra premium is in effect the same as rating up of lives, save that this is usually applied in cases of endowments or short-duration policies, because the first or the rating up method already pointed out will require a substantial addition to the true age to provide for extra mortality.

When the extra mortality is expected to be of a distinctly decreasing nature such as impairment arising from family history of tuberculosis, a mere increase in the age for the purposes of rating or the addition of a constant extra premium does not adequately provide for it. In such instances a lien is created against the policy for a number of years, the amount and the duration of the lien varying with each case. Sometimes, a constant lien for a number of years is put up, but the usual method is to have a decreasing amount of lien which extinguishes itself in about five years' time. The only disadvantage of the lien system is that a comparatively large lien is necessary to offset a small degree of extra mortality.

The question of the removal of extra premiums is often brought before the companies. In some cases, in which the extra premium has been agreed upon at the beginning, it is removed after satisfactory proof has been received that the original defect has been removed. Otherwise the office will not remove the extra premium, and rightly so, because, as we have already pointed out,

sub-standard lives are treated on the basis of the "group" idea and it is very likely that many other lives which belong to the same impairment group may have deteriorated.

At the present time practically all life insurance companies in this country transact such sub-standard business. By doing so they extend the benefit of life insurance to a large number of people who would otherwise be not able to obtain it. Investigations should be undertaken into the various types of sub-standard groups of people to determine the terms upon which policies may be issued to them.

Retention. We have already discussed the conditions that an insurance company bears in mind at the time of selecting a risk. The problem of retention of risk on any one life insured is of paramount importance to the company concerned. From the very nature of things, a company takes the risk of payment of a large definite sum upon the happening of a contingency in return for relatively small payments called premiums. If all its policies become concurrently due in consequence of an extraordinary death-rate, the company would certainly become insolvent. This possibility, however, must be incurred by companies, or the scheme of life assurance would prove impracticable of execution. The confidence with which a company confronts this formidable possibility of the payment of a large sum is dependent upon the stability of results of large numbers observed in ordinary life. The first problem is a fixation of the number of lives necessary to be insured in order that the actual number of claims by death may be confined within certain limits of the expected deaths as indicated by the table of mortality employed.

This is determined by the following principle, as stated by the American writer Gephart[1]:

> "If the probability of an event occurring at a single trial is D it will probably happen in M trials DM times. It has been proved that the probable magnitude of the deviations from DM can be expressed by the following formula:
>
> $$\sqrt{\frac{2}{\pi} \text{MDP}}$$
>
> where π is equal to 3.14159, M the number of trials or lives under observation, P the chances surviving one year at a given age, and D the probability of dying during the year. An application may thus be made of it.

1 "Principles of Insurance," Vol. I, by W. F. Gephart.

In the American table, assume that there are 20,000 lives at risk at age 41 where D is equal to 0.01, the expected percentage of survival being, therefore, 0.99. The probable extent to which the actual result would differ from this is obtained from the formula thus:

$$\sqrt{\frac{2 \times 20{,}000 \times .01 \times .99}{3.1416}} \text{ which equals } 11.2.$$

That is to say, the deviation of deaths from the expected 200 would probably be 11.2, the experienced mortality varying between 189 and 211."

In this case, therefore, assuming a higher mortality, provision should be made for 211 deaths.

After fixing the probable deviation from the expected mortality, the other problem is to determine the limit of maximum sum assured that a company should retain at its own risk. This is necessary because if a policy becomes a claim earlier than was expected from the data supplied by the table of mortality, the reserve accumulated out of the premiums in respect of that policy will be insufficient to pay the sum assured. But as the sum assured must be paid, the difference between the policy reserve and the amount of claim moneys have to be met out of the life fund. It is, therefore, clear that there will be a strain on the funds equal to this amount, which has to be made up in the manner mentioned above. In the case of a very large sum assured this strain on the fund will be considerable and might, indeed, conceivably put the office in financial embarrassment. Offices have, therefore, to fix an upper limit of risk which they desire to retain themselves. The only factor that deters an office from retaining a high amount is the chance of having to meet a large claim, possibly soon after a policy has been issued.

The limit does not depend upon either the extent of the premium income or the magnitude of the assets which the company may possess, as is sometimes erroneously believed. The extent of the general resources of the company in relation to its aggregate liabilities necessarily enters as a factor in the determination of the limit; but the final determination is greatly influenced by the chances of actual losses happening in case of large policies and the capacity of a company to meet the same as measured by the "surplus asset" which a company ordinarily possesses. It is, therefore, quite clear that the limit of retention is not based upon any special mathematical criterion. In the words of Mr. T. E.

Young: "Its standard must depend upon the extent of the general business which comprises all kinds and amounts of assurance; the scale of resources possessed in comparison with the obligations; the probable effect upon the amount and rate of profit and specially upon the maintenance of a series of bonuses which shall not be retrogressive, but, if practicable, increasing; and hence the primary criterion in the decision is the range of fluctuation which it is deemed prudential in the sound and permanent interests of the company, to incur for the more efficient promotion of those interests."[1]

Considering the above factors, we see that it is advisable for a company to fix the limit strictly at a moderate figure in its early career on the following grounds:

1. The company will have a comparatively smaller reserve, and adverse claims experienced under its maximum policies would produce a strain on the funds and may affect the expectation of profits very much.
2. In the early years the principle of compound interest would not have sufficient time to operate to increase the asset.

Hence a company that distributes its surplus annually should have a lower retention than another which distributes at longer intervals, for the simple reason that an adverse claim experienced in any one year would seriously affect the rates of bonus that can be declared. This is a contingency which should be as far as possible avoided.

Thus we see that the limit is determined by all considerations that may influence the rate of profit.

The limit of retention on sub-standard lives which have been accepted by a company at extra premiums or on some other conditions varies with different companies. Some prefer to have a lower limit for such cases than for the general body of their normal assured. But it appears that this distinction is not necessary. We will now discuss the methods by which the excess risks over the normal retention by a company are dealt with.

Re-insurance. We have just seen that life offices should not retain more than a certain maximum in case of large

[1] "Insurance," by T. E. Young, page 58.

proposals; otherwise their total profits are liable to fluctuate violently on account of deaths among holders of large policies. While, therefore, it is necessary to restrict the amount of insurance retained by a company, it usually grants policies for larger amounts than its own limit, because it re-insures the excess with some other company. The re-insuring company is tempted to accept such business up to a limit of its own, provided the same person is not already insured with it. The inducement to accept such business lies in the increase of assets and the possibility of earning profit from such business, because of the small expense that has to be incurred to secure it. This practice of re-insurance is generally carried out as far as possible on a reciprocal basis by all offices so that an all-round increase in business figures is maintained.

There are different methods of doing re-insurance. Whatever may be the actual plan of re-insurance, it is covered by either the Facultative or the Automatic system. In the first case the re-insuring company is free to reject or accept each offer; and this gives it a chance to examine each proposal in detail and to make any suggestions as to its alteration, or as to the charging of an extra premium or imposing a lien, or even to reject it altogether. This method, however, necessarily involves some delay. Under the Automatic system the re-insuring company binds itself to abide by the decisions of the ceding company and to accept the share of re-insurance which may have been determined by the actual contract.

Before we come to actual methods of re-insurance, we will briefly note the position of a ceding company. The ceding company has to incur a certain amount of expense to procure and to maintain the business on its books. It is, therefore, not surprising that the ceding company expects the re-insuring company to compensate it proportionately for the expenses incurred. The rates of commission payable, however, vary widely between companies and also depend upon the type of policies re-insured. The usual rates of commission for Ordinary Whole Life and Endowment policies under which premiums are payable for 15 years or more, vary between 60 and 70 per cent. for the first year's premium and between $6\frac{1}{4}$ and $7\frac{1}{2}$ per cent. for the renewal premiums. It is obvious that the above rates of commission provide for a margin to cover a certain amount of office expenses of the ceding company.

The ceding company desires to insure only with an office of at least the same status and strength, so that the profits on the re-insured policies may be fully maintained. It further expects an equal amount of reciprocal business so that the total business appears to be as substantive as has been secured in the first instance.

Finally, the ceding company desires to settle re-insurance arrangement in the shortest possible time so that its original policy for the full amount may be issued. Undue delay here, as in other matters, is likely to be harmful to the company; for the business may be snatched by other companies if it is not settled quickly.

Whatever may be the method of re-insurance, the original policyholder gets the policy assuring the full amount agreed upon and does not even know of the existence of the re-insurance. The re-insurance is a contract between the original company and the re-insuring company. In England the practice of re-insurance is regulated by the Re-insurance Agreement of 1900 and is followed by the principal life offices.[1]

The two main methods of re-insurance are the Co-re-insurance and the Risk Premium re-insurance. There are also the methods of sub-standard life re-insurance and again re-insurance by Pool system by the companies themselves.

In India the familiar method of re-insurance is on the co-re-insurance basis and is done either by the Facultative or Automatic Treaty arrangement. In the early days of Indian life offices when there was not much facility for re-insurance, a large volume of such business was done with foreign companies. We know that often a policyholder prefers an Indian company on the grounds of *swadeshi* and if he were aware that a part of his risk is being shared with a foreign company, he would surely resent it. As mentioned above, in the absence of facilities, such re-insurances with foreign companies were at one time a necessity, but the growth of large and strong Indian insurance companies which accept re-insurance either under Facultative or Treaty basis has practically eliminated this necessity. Re-insurance is usually effected on the terms and plans of the ceding office, the guarantee being evidenced

1 "Life Insurance from Proposal to Policy," by Tayler and Tayler, page 11

by the issue of a policy by the re-insuring office to the original company.

We will now briefly state the routine involved in the practice of re-insurance. Under the Facultative system the principal office takes out copies of the completed papers, namely, the proposal, the medical report, etc., and forwards them to the guaranteeing office with a covering letter stating the amount of re-insurance required. The rate of premium and special conditions, if any, are also mentioned. If the guaranteeing office is satisfied, it intimates a provisional acceptance.

In the case of large proposals necessitating re-insurance with several companies, the method adopted is the same. On receipt of the acceptance by the guaranteeing office or offices of the excess re-insurance required, the principal office issues its own letter of acceptance to the proposer. When the first premium is paid, the principal office intimates the guaranteeing office the date of commencement of the risk. The principal office thereafter completes a re-insurance proposal form and sends it to the guaranteeing office either with a cheque covering the proportion of the re-insurance premium, less the commission that might be agreed upon and the guaranteeing office's proportion of stamp duty. The guaranteeing office either issues a policy assuring the principal office or endorses a copy of the policy of the principal office issued to the assured to the extent of its guarantee. Ordinarily there is either an explicit understanding or a treaty arrangement which determines the method to be followed in case of re-insurance proposals such as copies to be forwarded, commission rates, whether or not the principal office's original policy will be followed, and its rate of bonuses guaranteed, as also whether the policy conditions will be also followed. The majority of Indian offices follow this system of co-re-insurance and in some cases there are treaties also. In the case of re-insurance on sub-standard lives, the Facultative method of taking the consent of the guaranteeing office before the issue of the "letter of acceptance" to the proposer is followed.

Some Indian companies, however, do the sub-standard re-insurance by treaty also. One such treaty arrangement by an Indian company is briefly narrated as follows:

The re-insuring company accepts up to four times the normal retention on sub-standard lives. They re-insure only the actual sum payable at death or maturity even if the original proposal is on a With-profit basis. The premiums payable to them are based on the non-profit rates for the relevant plan under which the policies are issued. In the case of larger re-insurances exceeding the gross retention of the company, their previous consent is necessary if they are to be interested in more than their maximum share. The accounts of premiums payable to them less commission deducted and claims recoverable are made at the end of each quarter. This specialised re-insurance enables the first company to accept proposals from a large group of persons who would otherwise have to go without insurance.

The Indian Life Assurance Offices Association attempted a few years ago to promote a Re-insurance Pool of existing companies. The method suggested was as follows:

The companies will re-insure the excess over their retaining limit which shall be determined and fixed for each office. This excess would be distributed amongst the remaining offices in the proportion of each remaining company's retention limit to the total retaining limit of the rest of the companies. This proposal, however, did not materialise, the reason being that the influential members of the Life Offices Association were members with more urgent work in connection with the Insurance Bill then before the Houses of Legislature, as also because the above system failed to give reciprocal re-insurance to the same extent to the companies with smaller retention. The other cause that led to the dropping of the idea was that the principal contracting companies, especially the big ones, did not seem to have implicit faith in the integrity of the other companies, and as it would have been difficult to restrict the membership to only a chosen few, the Life Offices Association dropped the idea. The other problems that arose in this connection and had to be carefully examined were the differences in the rates of different companies, in their policy conditions and plans and also in their rates of bonus. While ceding offices ordinarily expect and would like to see that the guaranteeing offices follow them in all respects, it often becomes very difficult and embarrassing to the guaranteeing offices to follow the principal office in all matters for the reasons mentioned above.

In Western countries, especially in America, re-insurance is done by specialised offices which often do re-insurance on the "term" basis. This system is novel and also new to Indian insurance companies, and is therefore set out in greater detail. Re-insurance under the term basis is more scientific. It is as follows:

The re-insuring company re-insures only the amount at risk, viz., the difference between the sum assured and the reserve at a rate of premium that is fixed from the outset by the re-insuring company. Thus the principal office is guaranteed for that portion of which it is not in immediate need, but is liable to pay in the case of death. The other profits on investments and surrenders and other sources remain with the principal office. The following quotation[1] has a direct bearing on the subject.

> "These agreements can either be based on the same system as mentioned above, under which a portion of all the benefits under the original policy are re-insured, or the more scientific risk premium method can be adopted. This is a device under which the amount at risk, or the difference between the sum assured and the reserve, is re-assured in each policy year at a rate of premium commensurate with the assumed rate of mortality in that year. In this way an automatic re-assurance is obtained, under any given policy, of a sum at risk decreasing annually, at a rate of premium which increases annually the resultant being a premium which increases slightly in the early policy years, subsequently decreasing until the date of maturity. Under this arrangement the re-assurer is, of course, not liable for any surrender or maturity payments but has released the direct-writing office of just that element for which it requires cover, namely, the surplus death risk. Thus all other profits from investments, surrenders and miscellaneous sources remain with the direct-writing office."

The re-insurance arrangement under the Risk Premium method can be given effect to by an agreement or by a treaty in which the details of the procedure to be followed regarding re-insurance transactions is mentioned. Either party to the arrangement can terminate it by giving the notice provided for in the agreement; but this will have no effect upon the existing re-insurances which according to agreement run to their natural conclusion. It has to be realised that the individual re-insurance of each policy follows the fate of the original policy. If the original policy lapses, the risk under the re-insurance policy also ceases, and it commences again

[1] "Some Re-assurance Problems," by W. H. Clough, *Indian Insurance Journal*, March 1939.

when the original policy is revived. In the case of sub-standard lives, when the principal office imposes an extra premium by rating up the age of the assured, the risk premium is calculated according to the rated-up age. When the principal office puts up a lien, the risk premiums are calculated on the basis of the stated age, but the liability of the re-insurers is reduced by the amount of the lien.

This method of re-insurance is also usefully employed in foreign countries to re-insure the payment of an extra sum in the case of death to the assured by accident. In India the payment of double sum assured in the case of accidental death is ordinarily given by practically all Indian companies who charge Re. 1-8 to Rs. 2 per thousand rupees, according to the occupation of the assured. Some offices agree to pay triple sum assured in the case of death by certain specified accidents and ordinarily charge Rs. 2-8 per thousand rupees of the original sum assured for this benefit. This particular risk is usually re-insured with offices that do personal accident business. This method of risk-premium insurance enables ceding offices to develop their life funds without fear of any serious inroads on them, for the actual amount at risk (that is, the difference between the sum assured and the reserve) is re-insured at a premium which is not very excessive. Careful selection of lives is absolutely essential for the smooth functioning of this system; for re-insurance companies will accept treaties only from offices in whose methods of selection they have confidence. In the case of adverse experience the rate of risk premium can be modified, failing which option may be exercised by the re-insurers to give notice for the cancellation of the agreement.

This system of risk premium insurance has great possibilities in India in view of the large number of small companies which have sprung up during the last ten years. Such companies can be greatly helped by other well-established Indian companies in a manner which will ultimately benefit the latter too. It is interesting to record here that representatives of two foreign re-insurance companies recently visited our country to make arrangements for such re-insurance treaties. The rates of premium applicable to Indian lives as formulated by one of these companies are given in the statement attached, as also an example as to how the system works.

Rates of Premium per Rs. 1,000 Sum at Risk under Indian Life Re-assurance

Age next birthday	Endowment Assurance on Single Lives	Other classes	Age next birthday	Endowment Assurance on Single Lives	Other classes
20	5.53	8.37	50	23.52	32.16
25	6.84	9.51	55	33.20	47.06
30	8.49	11.17	60	48.25	67.39
35	10.52	13.21	65	71.38	106.57
40	13.26	17.28	70	106.54	156.73
45	17.30	22.78			

Example of Life Re-insurance on Risk Premium Basis

AGE AT ENTRY 40 YEARS NEXT BIRTHDAY

SUM RE-ASSURED—Rs. 2,000

Original Policy: Endowment Assurance. Term : 20 Years.

Policy year	Age	Sum at risk	Rate per thousand	Re-assurance premium	
		Rs.		Rs.	a.
1	40	2,000	13.26	26	8
2	41	1,932	13.95	26	15
3	42	1,862	14.69	27	6
4	43	1,790	15.47	27	11
5	44	1,716	16.35	28	1
10	49	1,298	22.06	28	10
15	54	792	30.92	24	8

It would be regrettable indeed if foreign companies are able to enter into such agreements in India and thus take away a large portion of the premiums from Indian companies. As we have already stated, Indian companies, and certainly the smaller ones, are patronised by the public on the ground of *swadeshi.* It will, therefore, be a breach of faith on their part if they accept such agreements with foreign companies. The importance of this warning will also be quite clear from the present political and economic troubles in Europe, which may not only hamper ordinary business

relations but ultimately prevent the transfer of funds for payment of claims as and when they fall due.[1] The work of risk-premium insurance should, therefore, be taken up by well-established Indian insurance companies either as a separate venture or as part of their ordinary business. We understand that a proposal along these lines has already materialised and a well-known Indian insurance company is attempting to operate on this basis.

Unfortunately in India we have no re-insurance companies dealing exclusively in re-insurance as in other countries. As we know already, in the early stages of insurance, Indian companies used to re-insure the excess risk over their limit of retention with foreign companies. Now, of course, they re-insure to a large extent amongst well-established Indian insurance companies.

We further understand that there is a proposal to float a mutual re-insurance company with shares limited to Indian insurance companies themselves. How far this will succeed is not known, for the larger Indian companies do not seem to have any need for any further re-insurance arrangement over and above what they already have.

The opening of a re-insurance department on the Risk Premium method already mentioned, or the flotation of a re-insurance company will enable the question of re-insurance to be studied closely. The problems of female insurance, under-average lives, hazardous occupations in different industries, the problem of disability benefits and double payment of sum assured in case of accidental death, and such allied issues can be properly studied. This will not only benefit the concerns directly interested, but also all other companies and insurance business in general.

[1] Since the above was written, war has broken out in Europe and for all practical purposes business is cut off from India.

CHAPTER XII

Field Organisation and the Practice of Life Offices

An organised sales force is necessary to secure a constant and adequate flow of new and acceptable business. Unlike other services, life insurance is a service which is seldom sold without persuasion. Attempts to sell it directly by solicitation or advertisement or through the agency of savings banks have met with little success in India as in other countries. Evidently it has little direct buying appeal, and perhaps the chief reason for this is that the benefits secured by insurance appear to the buyer as remote and intangible. Another reason is the general association of life insurance with the abhorrent idea of death.

To overcome this unwillingness on the part of the prospective policyholder to insure his life, an active and aggressive selling organisation is required. There are two types of field organisation, viz.,

(1) Chief Agency, and

(2) Branch Office system.

We will deal with the first as it is older than the Branch Office system.

Under the Chief Agency system, a country where a company desires to work is divided into a number of territories (geographical units) each of which is entrusted to the exclusive control and direction, in the matter of the company's business, of an individual or a firm. This individual or firm carries operations under contracts which provide a schedule of commissions. The schedule provides high rates of commission on first year's premiums and lower rates of commissions on renewal premiums, to be paid for the business secured in the respective territories and duly submitted to and accepted by the company.

The duty of the Chief Agents is to promote the company's interests, to secure new business and to maintain the old. For this purpose they have to organise, develop, and supervise a satisfactory sales force, maintain an office for collection of premiums, keep

accounts and records of the business and meet expenses of the agency. It is now a general practice to grant certain allowances to Chief Agents to help them defray their general office expenses.

In some cases, which are, however, rare, Chief Agents confine their attention to the securing of new business only. Even when they are large "producers" of new business, they find it more profitable to employ other agents to exploit thoroughly the territory allotted to them. In many cases the Chief Agents act as mere agency executives. They simply control and direct other agents who actually produce new business. The agents are paid certain stipulated net commissions out of the gross commission received by the Chief Agents. The profit of the Chief Agents depends upon the margin which they can save for themselves. We shall take up the general question of Agency later on.

The Branch Office system is of later origin, but it is gaining popularity. Its adoption is due primarily to the desire of companies to establish more direct authority and closer supervision over the field workers. This system also gives better service to the policyholders. Many queries of the policyholders are simple in nature. They usually want information as to when the premiums fall due, whether loan could be granted and the amount thereof, the procedure regarding the assignment of policies and other information of a like nature. These queries can be immediately answered by a competent branch office. The Branch Office system gives wider latitude to the company in the selection, control and direction of their field workers. Such offices are opened in various places under the direction of salaried managers who act as the company's representatives for field work and look after its interests in the territories allotted to them. The Branch Manager is paid a fixed salary but is often allowed an agency commission on business produced by him. He may also participate in a bonus plan, the benefits accruing to him varying with the amount of new business secured through his branch office.

The duties of the Manager are to appoint agents under the terms and contracts fixed by the company and to secure business through them. All expenses of conducting a branch office are checked and paid by the Head Office. The Branch Managers have full right to deal with certain aspects of the renewal business which frequently arise. The bigger branches are given the right to accept

and record assignments, as also to deal with applications for loans and to sanction them. We will now briefly compare the two systems of field organisation narrated above.

A process of evolution in the field organisation is going on. Generally, the Chief Agency system is encouraged by companies in order to make an opening and to gain a footing in a new territory. The Branch Office system is then adopted to develop it intensively. The two systems have thus been found to complement each other.

The important differences between the two systems are:

1. The Branch Manager is paid a salary.
2. Expenses of the Branch Office are met by the company.
3. The agents appointed by the Branch Manager are the agents of the Company.

On the other hand,

1. The Chief Agent is remunerated by way of commissions.
2. He has to meet the expenses of the Agency office out of commissions received by him.
3. The agents appointed by the Chief Agent are his sub-agents.

In the long run, the costs of operating the two systems are about the same, although they are distributed differently. The cost under the Branch Office system is greater in the first policy year because the company has to pay the Branch Manager's salary, expenses of the Branch Office as well as the first year's commission to the agents who secured the business. On the other hand, the cost under the Chief Agency system is greater in subsequent years because the rate of renewal commission is usually very much higher than that payable to the agents under the Branch Office system. With a large volume of renewal business the extra commission totals to an appreciable amount. However, the two systems are very much alike in two respects:

(1) The cost to an established company "writing" a steady flow of business is about the same,

(2) both systems are mainly concerned with the same work, viz., the procuration of new business in the field.

As we have already pointed out, both the systems function through agents. In large established companies, the agents number several thousands. The Agency force may be broadly divided into two groups, viz.,

1. Part-time Agents, and
2. Full-time Agents.

At the present time Part-time Agents are numerically larger than the Full-time Agents. This is due to the growth of the Branch Office system and the attempt to procure more and more new business. Companies employ agents primarily to procure new business and expect them to look after the interests of the company in their territories, to prevent lapse of policies, etc. The agent is authorised to procure complete proposals for new assurance and to obtain the friends' and medical reports promptly. He has to submit his own report also on each proposal. He is ordinarily authorised to accept the deposit on behalf of the company towards the first premium only. Any deposit thus made is to be mentioned in the space provided for in the proposal itself, and the company is not liable for any sum paid to the agent other than the above. The agent has no authority to bind the company in any other way, or to accept any notice on behalf of the company. Any papers or money except those mentioned above, are handed to the agent for favour of being forwarded to the company's Head Office entirely at the risk of the party. But when a company continues to accept renewal premiums through agents, it becomes liable for any money so paid to them even if it does not reach the company for any reason whatsoever.

Agents are remunerated by way of commission. A large percentage is paid on the first year's premium of a policy and smaller commissions are paid on the second and subsequent years' renewal premiums. Sometimes the payment of commission is restricted to certain number of years. The first year's commission is usually on a sliding scale, the rate being determined by the amount of new business introduced in any one agency year. There are several restrictions on the rates of commission. Commission is

restricted upon certain types of policies, and in the case of some others where the premium is payable for a limited number of years. A few companies add a tempting bait of additional commission in the case of a policy assuring a large sum and others go further and give a bonus calculated upon the total new business secured, usually in the last three closing months of the year.

The renewal commission is usually 5 per cent. Here also there were instances where companies introduced a sliding scale and paid 10 per cent. commission on the second year's premium, 7½ per cent. on the third year's premium and 5 per cent. thereafter. The renewal commission is payable so long as the agency contract continues. Occasionally it is subject to a certain minimum of new business being introduced by the agency concerned.

In their attempts to secure large volume of new business, companies vied with one another in offering exorbitant rates of commission on first year's premium. This led to the ruination of several companies and repercussion was felt by Indian insurance companies in general. The Insurance Act of 1938 has fixed the limits for maximum commissions. For companies of more than 10 years' standing the maximum first year's commission is fixed at 40 per cent. and renewal at 5 per cent. and for other companies the limit is 55 per cent. and for renewal at 6 per cent. The extra margin of 15 per cent. on first year's commission and 1 per cent. on renewals allowed to young companies is to enable them to hold their own in the competition with older companies. Here it is presumed that 10 years of preferential treatment would enable a new company to establish itself.

Before we close, we must protest against the practice of life insurance companies and their representatives carrying on their business in such a way as to promote rather than lessen or remove the mystification of the policyholders. Every company which competes in the sale of insurance is interested, above all, in the selling of its own policies; its agents too are intent upon the same purpose. The representatives are not concerned with the explanation of insurance in general and the benefits of the particular types of policies to prospective policyholders in order that the latter may fully understand what they are buying. Instead, they emphasise the advantages, real or imaginary, of those policies which their respective companies

issue, and particularly that type of policy, the sale of which brings them, as insurance agents, the largest commission.

A prospective proposer is not interested in the purchase of a policy as such. What he wants is protection for his family and himself, geared to his hopes and aspirations and within his capacity to pay. If these are to be satisfied, the agent must, before selling a policy to him, make a careful study of his special requirements. But this is possible only if the agent is properly trained to do his work. The agents as messengers of insurance must be well trained and well informed so that they can present a true picture and win the confidence of the prospective proposer. The trained agent should be able to appreciate the proposer's point of view, assess his needs and his capacity. He will then be able to meet his requirements properly. He would often create or make articulate a real demand for insurance and help to expand the business of his company. The need for such training is imperative in the interest of the business itself, for without the proper dissemination of the insurance idea, the business itself is bound to suffer a setback.

We will now narrate the procedure adopted in offices regarding the treatment of new proposals and how it is attended to during its continuation on the books of the company till it is finally terminated by the settlement of a claim under the policy. It should, however, be remembered that while there is a broad uniformity in principle in the office practices, there exists great divergence in detail of the procedure of each company. In the following narration, we have attempted to state the procedure in non-technical language as far as possible. We have not, however, been able to avoid technical terms altogether.

The office or company on receipt of the Proposal and the connected papers, viz., the Friends' Report, the Agent's Report and the Medical Report, carefully scrutinises them to see that all questions are satisfactorily answered and that there are no omissions. The present-day tendency is to ask a few general questions about the personal history of the proposer and thus shorten the proposal form. The statement before the medical examiner, however, continues to be comprehensive; also the friends' report is not insisted upon nowadays because it is not of much value in assessing the risk.

The complete set of papers is sent to the "Adrema" Department, where a metal plate is embossed with the following particulars:

A	Proposal No. and risk date	Name and sum assured	Due date and mode of payment	Premium Rs. a.
				Accdt. Prem.
	Name and address			Plan
				....
	Agent		Branch	District, etc.

The embossed plate is used to print the particulars in the "New Proposal Business Register." The information in the upper part of the plate marked "A" is printed on a lose sheet of the above book. Particulars of several proposals are printed on one sheet. Two cards and a review sheet are also printed with the full details from the plate. With the help of one of the cards, the office indexes of declined proposals are checked and if any reference is found it is immediately followed up by query and the consideration of the proposal is delayed.

The complete proposals together with the review sheets are sent to the medical referees who note their decision on the review sheet. In some cases the referees require further details or clarification of some points and reference is made either to the medical examiner, proposer or the agent as the case may be. The company's medical report on the examination of the proposer and also answers to general questions about his age, habits, etc., enable the referees and the manager to form the basis of acceptance. Reasons are seldom given for declining the proposal, although if the rejection is due to a defect that can perhaps be remedied by treatment, the proposer may be unofficially advised to consult his doctor.

If the proposal is accepted at increased rates and if the proposer so desires, the company will offer the alternatives of a level or a decreasing debt. The usual practice is to pay the claim in full, irrespective of level or decreasing debt, if death occurs as a result

of an accident within the terms of the policy (i.e., excluding accidents from aviation, etc.).

When the proposal has been approved, a formal "Letter of acceptance" is sent to the proposer, usually through the agent. This generally specifies the offer of acceptance as open for 30 days, within which the requisite premium must be paid to complete the contract. In case (before payment of the premium) any change takes place in the personal or family history of the proposer, the office requires that it should be intimated of the same so that it may reconsider its decision.

The completed proposal papers are sent to the "First Premium Collection" section which allots policy numbers when premiums are received. Where the first premiums are not received within two weeks after the issue of the "Letter of acceptance" reminders are issued. After the expiry of the days of grace, but before six months, if the proposer desires to accept the offer, he has to make a declaration of sound health on a printed form from the company, stating that he had no illness or medical treatment and that there has been no change in his personal or family history by death or illness and that his occupation and mode of life remained the same as stated in the proposal; also that no company has since then postponed or declined to assure his life or offered a policy other than as applied for, or subject to conditions different from those which apply to first class lives. If the completion is delayed beyond six months, the company will demand a fresh medical examination at the proposer's expense if the proposal is to be reconsidered.

When the proposer has in the meantime passed a birthday it is the general custom to "date back" the policy so as to give him the benefit of a lower premium; also changes in the mode of payment of premium are entertained at this stage. The usual practice of Indian offices is to charge no extra premium for half-yearly or quarterly payments; but for monthly payments a slight extra over the printed rate is required. A few companies waive this extra if the monthly instalments of premium amount to Rs. 12 or more. It must always be remembered that the half-yearly, quarterly or monthly premiums are instalments of the annual rate and in case of a claim, the outstanding instalments for the current year of assurance are deducted from the policy money. On payment of

the first premium a special form of receipt is issued, which acknowledges the first premium and certifies the commencement of assurance.

If the proof of age is submitted with the proposal, the policy is issued with the age marked "admitted" on it. This saves a good deal of trouble at the time of the settlement of claim. A large number of proposals, however, result in policies on the basis of the age stated therein. The procedure adopted to adjust the premiums on the correct age being found out at a subsequent date has been stated in detail in the chapter dealing with policy conditions.[1] Suffice it to say here that we seldom come across cases of over-statement of age. Proposers usually err on the side favourable to themselves.

The complete set of proposal papers together with the policy number entered on the review sheet as well as any alteration made in the plan, term, mode or amount of premium, is again sent to the "Adrema" Department which makes the necessary alterations in the corresponding embossed proposal plate and reprints loose-leaf sheets for the new business book (particulars of several policies are mentioned in running number in a sheet), renewal sheet and usually four other sets of cards. The renewal sheet is kept serially arranged in binders usually in lots of 500 or less. One card is used as a name index. This index card enables the company to find out the policy number of an assured when he does not mention his policy number. Without the policy number no query can be attended to as all papers relating to the policy are filed in cabinets in serial numbers of policies. Another is usually sent to the Branch Office which secured the business, for their name index. A third is supplied to the agent for his record and a fourth goes to the Actuarial Department which keeps it up-to-date with necessary alterations effected in the policy, and this facilitates investigation at the time of valuation.

The set of completed proposal papers is then passed on to the "Policy Preparation" Department. Policies are now generally typewritten on what are known as "Schedule forms". Such forms have ordinary usual conditions printed on their back. A few types of such schedule forms are sufficient to cover the usually large

1 Pages 137-38.

number of policies issued by a company. Particulars peculiar to each individual case are contained in a schedule so that normally no entries are made except in the schedule and one form is usually sufficient for a number of different policies. Policies have few restrictions nowadays, the contract being thus fixed from the outset and dependent only on due payment of premiums. Policies are duly stamped, signed, sealed and delivered to the assured either by registered post or through the agent with a covering letter thanking the assured for his kind patronage and assuring him of prompt attention. The covering letter also requests the co-operation of the assured in the matter of popularising the company among his friends and relatives.

After a policy has been issued, the Renewal Department deals with all subsequent payments received and omissions made therein. The general practice of offices is to send reminder notices of renewal premium just before it is due, but failure to do so in any event will not be accepted as an excuse for non-payment of premium in time under the terms of the policy. However, apart from the days of grace there is always a provision under which the premium with interest at nominal rate together with a declaration of good health is accepted after the policy has lapsed. This benefit can be exercised during the first two or three years of the existence of the policy. Special revival schemes are also in vogue which revive the policy without payment of arrears in premium. Once a policy has acquired surrender value, which it usually does as per the terms of the policy at the end of two or three years of its existence, it is usually kept in full force under the non-forfeiture or automatic extension clause for a limited period.[1] Some companies limit it to a definite period and thereafter make the policy paid-up. Others put no limit to this period and keep the full sum assured in force as long as the surrender value lasts. The policy lapses thereafter. The overdue premium with interest paid in during this extended period automatically reinstates the policy to its original condition. In cases where the policyholder is unwilling to pay further premiums, he has the following options:

1. He can give up the policy and take the surrender value in cash.

[1] For details of the above benefits please see chapter on "Policy Conditions," pages 146-48.

2. He can make the policy paid-up for a reduced sum with a right to bonus already declared or attached, but not to those accruing in future.

3. He can take the benefit of "extended term assurance." (This condition is offered by very few Indian companies.)

Sometimes policyholders desire to change the terms, duration or plan of the policy. The companies discourage such alterations. But a company will agree to make the change where it does not involve the company in an increase of its liability on that policy. Alterations which result in a higher premium for the same amount of sum assured are easily accepted. The difference in the rate of premium together with the specific rate of interest is charged. Moreover, no alterations within five years of the date of maturity are entertained. Alterations which involve an increase in liability are sometimes allowed after the evidence of eligibility asked from the assured at his expense is accepted. Requests for removal of an extra premium are usually refused except where the extra imposed was conditional for the simple reason that though all "rated-up lives" will not remain for ever impaired, as a group they will continue to be inferior to normal lives. Any change made is endorsed on the back of the policy and duly initialed by an officer of the company. Sometimes a fee is charged for passing an endorsement.

Assignments of policies (in favour of near blood relations or otherwise) may be done in two ways:

1. By endorsement on the back of the policy.

2. By a separate document.

Notice of such assignments are given to the office by letter and they are carefully noted. While the offices co-operate in tendering suggestions as to the standard wordings of assignments, they, however, take no responsibility as to its validity. While acknowledging the assignments they make it clear that they are not expressing any opinion as to the validity or otherwise of such assignments. Whatever be the nature of assignment, whether absolute or conditional, whether it is made by endorsement or by separate document, it cannot be cancelled except by the assignee. No transaction under the policy such as taking of a loan, is possible without the consent of the assignee. Piquant situations may sometimes arise when an

assignee (e.g., a wife living in separation) refuses to re-assign the policy. The only course left open under the circumstances is to stop payment of further premium and lose whatever amount has been paid already. Assignments made at the time of the issue of policies and subsequently in favour of near blood relations (wife and children generally) are not charged for; otherwise the usual charges are Rs. 2 per assignment. These defects have been solved by the Insurance Act of 1938. This enables the beneficiary to be nominated who is entitled to the benefits under the policy in case of death during the term of the policy, and otherwise has no rights. The name of the beneficiary may be changed on payment of Re. 1 for each nomination.

In case of With-profit policies, the assured often has the option of taking his bonus in cash or in reduction of premiums instead of reversionary addition to the sum assured. The cash value of the bonus is fixed at the time of the declaration of bonus. If the policy-holder desires to take the cash value, the procedure to be followed is simple in the case where a policy is not assigned. He has to give a valid discharge on the bonus certificate only.

If a policyholder wants a loan, he has to ascertain from the office whether a loan is available. The minimum loan that is advanced may accrue after several years in case of small policies and all applications for loan within this period are turned down. Quotations of loans are subject to premiums being paid up to date. The surrender value and the loan value are calculated on the number of annual premiums paid. Therefore, it is sometimes advisable to pay the remaining instalments of an annual premium which will secure a bigger loan. In case of old policies nearing maturity, the surrender value increases more than the instalments of premiums. Provided a policy is not assigned and there is no charge on it, a stamped loan bond with all particulars completed is sent to the assured for signature and on receipt of the same from him, a cheque for the loan amount is issued. Where a policy is conditionally assigned, the consent of the assignee is obtained on an official loan application bond. Interest on the loan is deducted up to the next date of repayment. Some offices issue reminders for interest in the month in which it falls due. A part-payment subject to certain minimum is always accepted in reduction of a loan.

When an intimation of a claim is received, a remark to that effect is made in the renewal register against the particular policy. The "Adrema" plate is removed from its tray and kept separately so that renewal notice, etc., may not be issued inadvertently. A note is made on the valuation card, which facilitates the determination of mortality experience. All papers relating to that policy are also separately filed. A review sheet is prepared giving details of the policy, its exact duration, total premiums received, actual amount exclusive of bonus payable and assignments, if any. The papers are carefully gone through and in case everything is found satisfactory, a set of claim forms is sent to the assignee or to the relative of the deceased with a covering letter requesting him to return the forms duly completed together with the original policy and Letters of Administration or Probate of Will, if the policy is not assigned. The claim forms are carefully scrutinised when received and the report of the last medical attendant is sent to the medical referees for scrutiny. If everything is found in order, a discharge by the lawful claimant is obtained on the back of the policy and the payment made, usually by crossed cheque. Where a policy matures for payment due to survival of the assured to the age specified, the sum assured is paid immediately, provided the age has been already admitted.

In the case of death claims, delay in settlement is due to several reasons, such as

1. The age of the assured not being previously admitted.
2. Absence of proper assignment.
3. Delay in obtaining Probate of Will, or Letters of Administration.
4. Litigation among the claimants.
5. Delay in the submission of claim papers in the required form.

After a claim is settled, the complete set of papers together with the discharged policy is numbered again and separately filed.

We have now described the life-history of a policy from its inception to its termination. The internal organisation of the office is aimed to facilitate the above course and co-ordinate this activity with the Accounts Department and the Actuarial Department (for its special responsibility of valuation).

The smooth working of the "Adrema" Department is essential for the harmonious continuity of work in all sections of the office. This mechanised department prints the Proposal Book, New Business Book and Renewal Sheets at the time of the issue of the policy and a few sets of cards for special purposes, already mentioned. It also prints renewal notices and reminders and also receipts for payments made.

The card sent to the Actuarial Department is properly scrutinised and filed in serial number. Any changes occurring in the sum assured, mode of payment, date of risk or maturity, date of last payment, change in plan or requirement of any extra premium, is carefully noted. Cards for policies made paid-up are separately filed, and so are the cards that are surrendered and matured. The cards are kept carefully checked so that the valuation as on a certain date need not be delayed. The other routine duties of the Actuarial Department are to check the premium amounts and their instalments, the plan, the mode, the sum assured, the date of last payment and maturity. Quotations for policies at ages not mentioned in the prospectus are calculated and supplied. The amount of loan, surrender value and cash value of bonus are calculated here. Any special investigation such as cost of procuration of business through different organisational units, etc., is also done here. Another important function of this department is to review and to guide the investments of the office funds to suit the requirements of the business as observed by the analysis at the time of a valuation.

There is a tendency amongst large business concerns, more particularly insurance companies, to adopt mechanisation to suit their individual requirements. Big companies have installed "Hollerith" and "Powers" machines. These machines are capable of wide adaptation to suit a variety of needs, and they do a large volume of routine work within the shortest period at a cheaper cost. Mechanisation ultimately reduces the running expenses of a large concern, but great care and attention are needed at the time of its introduction, as otherwise it may defeat its own purpose.

We are aware that the above description has not been a comprehensive one, but it is impossible, within the scope of the present attempt, to give fuller details of the working of individual departments of an insurance office. This alone is enough to form the subject-matter of a separate intensive study.

CHAPTER XIII

The Legal Aspect of Life Insurance, and Insurance Law in India

The Making of an Insurance Contract. The business of life insurance is essentially contractual in nature. It is governed by a special law relating to life insurance only. This law of life insurance may be defined as that body of rules and principles by which are determined not only questions arising on the formation of contracts, but also the devolution of rights of property derived under them. The marked development during the last hundred years or so of life insurance business not only in the number of contracts made but also in their varieties of forms and intentions make the study of the law affecting them a subject of increasing importance to all concerned. In India the development of law was not so systematic as in England from where the principles of the business of life insurance was borrowed. We will come to the historical aspect of the development of the law of life insurance in India at a later stage. We would now consider the essentials of the law of contracts on which, no doubt, the law of life insurance depends.

"A contract may be described as a transaction which consists wholly or mainly of a legal binding promise or set of promises."[1] It is necessary that the parties to it must have it as their intention to be bound by such contracts. We, therefore, see that a contract must be founded on a true agreement. The parties must be of one mind. If some term of the arrangements between them remains unsettled there is no agreement and, consequently, no contract.

Contracts may be either unilateral or bilateral. Most of the commercial contracts, and certainly all life insurance contracts, fall under the latter category. For the formation of a valid contract the following conditions are essential:

(1) An offer and its acceptance,

(2) either form, or consideration, or in some cases both,

(3) the capacity to contract, and

(4) the legality of the object of contract.

1 "Elements of English Law," by W. M. Geldart.

In the case of life insurance the proposer usually makes a proposal on a printed form of the life office. If after making the usual enquiries through the friend's report, the agent's report and the report of the medical examiner, the life office is prepared to contract, it issues a "letter of acceptance" that it is prepared to grant a policy subject to certain conditions as specified therein. The term "letter of acceptance" is, therefore, misleading because if it were the true acceptance of an offer it would not contain any further conditions. The commencement of the risk does not necessarily commence with the completion of the contract. It is ascertained by the intention of the parties as expressed in the document, namely, proposal or subsequent letters.

The form or consideration in life insurance is expressed by the signing of the proposal and other forms, if necessary, and the payment of the specified amount of premium within a definite period as mentioned in the letter of acceptance. The payment of the premium is usually necessary to complete a contract of life insurance. This differentiates it from the other branches of insurance, viz., fire, marine and miscellaneous insurances. In the latter cases, if all the essentials are piesent a valid contract may be made and insurance cover granted for a period not exceeding one month within which period the premium is payable to complete the contract.

The preparation of the policy is compulsory under the Stamp Act and must be executed within a month of the receipt of or taking credit for the premium. The failure to do so is punishable by fine.[1]

The parties to a valid contract must enjoy the legal capacity to enter into contracts.

[1] Section 66 of the Stamp Act, 1899 (II of 1899), as amended up to 1st May 1934, says:

" Any person who

(*a*) receives, or takes credit for, any premium or consideration for any contract of insurance, and does not within one month after receiving or taking credit for, such premium or consideration, make out and execute a duly stamped policy of such insurance, or

(*b*) makes, executes, or delivers out any policy which is not duly stamped, or pays or allows in account, or agrees to pay or allow in account, any money upon, or in respect of, any such policy,

shall be punishable with fine which may extend to two hundred rupees."

Under common law the minor, the married woman, and aliens are restricted under certain conditions from entering into contract and the contract becomes void or voidable if proper considerations have not been kept in view at the time of the making of the contract.[1] The other people who are precluded from making valid contracts are:

1. Convicts who cannot contract during the term of their conviction.
2. Idiots and lunatics if their state of mind is known to the other person who contracts.
3. A corporation which contracts outside the scope of its memorandum or for purposes not incidental to its business.

Further, partners in a business have the capacity to contract for the partnership firm within the scope of the partnership business.

We will presently discuss the capacity of party and the essential condition for the formation of a life insurance contract.

A contract is not enforceable if its object is illegal. In life insurance the validity of the contract depends upon insurable interest which we will discuss later. We will now briefly consider how a contract validly made can be discharged. The method usually adopted is one of the following:

(1) By agreement.

(2) By novation.

(3) By breach.

(4) By performance.

Just as the parties make a contract by agreement, they can also end it by agreement. The assured and the life office may agree that on making a cash payment, termed as surrender value, the policy shall become void. The new agreement is not necessarily only for the cancellation of the existing policy, but may relate to the variation of terms of the old contract, such as conversion to a paid-up policy or alteration of a Whole Life insurance to an Endowment insurance. This may also extend to the enjoyment of special benefits guaranteed under a policy such as disability benefit, or

[1] In common law a contract is voidable, if one of the parties is a minor. Under Indian law the contract is totally void under sections 10 and 11 of the Contract Act. In India, the Indian Contract Act would govern.

extended-term insurance benefit. It is, therefore, not always easy to determine whether the old contract of a life assurance has been merely modified, or a new contract has taken its place. In a special type of life insurance contract, certain obligations under it are automatically extinguished in favour of further obligation already specified in the contract. In such cases the earlier contract is stated to be discharged by novation.

The breach of a contract by one party where the other has fulfilled or is willing to fulfil his obligation gives rise to remedy for breach of contract. The life insurance contract contains within its own terms the conditions on which it shall be discharged. Ordinarily if the premium is not paid within the specified time, the contract is discharged and there is no remedy for breach. However, certain reliefs such as automatic extension or guaranteed surrender value or automatic paid-up value are granted to the assured to allay the hardship he might feel on account of his default after he has paid a considerable number of premiums. Another event that may lead to a discharge of the contract is the breach of a condition such as that the assured shall not reside in a certain country or in a certain climate.

A contract can be finally discharged by its performance and the usual method under a life insurance policy is by payment of the money promised or payable under such a contract. Payment by cheque or other negotiable instrument is good payment if only accepted by the payee and would give right of action on the cheque or other negotiable instrument. It is usually provided in the life policy itself that the claim shall be paid at the principal office of the assurance company, although for the sake of convenience, payment is often made through branch offices and agencies direct to the assured, or his representative.

Ordinarily when a contract is reduced to writing, the terms of the writing are usually considered to determine the mutual rights and obligations of the parties. Thus the policy will be the normal evidence of the contract of life assurance. However, there may be some other collateral conditions expressed in the prospectus, on the faith of which the contract is made, and such evidence, if material, will be taken into consideration in case of dispute regarding the scope or interpretation of the policy conditions. For instance, the minimum surrender value or the paid-up value guaranteed in

the prospectus shall be binding irrespective of any condition that may be ordinarily specified in the policy.

In the business of life insurance the "agent" occupies an important position. He is a person ordinarily employed by a life office to solicit proposals on the terms and conditions of the company from those who wish to effect insurance. An agent can bind his principal only to the extent of the express or implied authority as evidenced by the usual letter of appointment; and where a person contracts with an agent who has assumed an authority beyond that customarily given to the agent, the person does so at his own risk, unless he is satisfied that such assumed authority is to be exercised by the agent. The life office ordinarily restricts the authority of its agents to solicitation of proposals from prospective parties on the terms and conditions as published in its prospectus and also to the collection of the first premium which is usually remitted with the proposal. The life office may, however, if it so wishes, ratify unauthorised acts of its agent. But if it does so as a matter of general practice, the implied authority of the agent will be automatically enlarged to that extent. Further, as a general rule the knowledge of an agent will bind his principal and sometimes difficult questions arise when an agent has filled in the proposal and the other relative forms in his own handwriting on the basis of information supplied to him and the proposer signs them. It appears from the decisions given on such cases that the proposer himself is responsible for the replies to the proposal and if an agent fills in the proposal form, he acts more as the agent of the proposer than of the life office.

The special questions that arise in life insurance contracts are:

(1) The principle of *uberrima fides* as opposed to that of *caveat emptor.*

(2) Insurability interest.

(3) Representation and warranties.

We will now deal with these features.

In the case of ordinary commercial transaction the legal maxim "*caveat emptor*" (meaning "let the purchaser beware") prevails. In the absence of an enquiry the other party to the contract is under no obligation voluntarily to furnish detailed information

regarding the subject-matter of the contract. It is, however, understood that one party to the contract should not be misled by the other by any false declaration. All the same it is open to both the parties to the contract to satisfy themselves and each party is entitled to make the best bargain that he can make. As a contrast to such commercial contracts the insurance contract is dominated by the legal maxim "the utmost good faith." This fundamental principle applies to all branches of insurance. It may be summarised from one of the several judgments pronounced:

> "It is the duty of the assured to disclose all material facts within their knowledge. In cases of life insurance, certain specific questions are proposed as the points affecting in general all mankind. But there may be circumstances also affecting particular individuals, which are not likely to be known to the insurer, and which had they been known, would no doubt, have been made subject to specific enquiries."[1]

The onus of good faith lies equally on both the parties to the contract, but in the nature of things the assured has to pay more particular attention to the observance of the principles. The selection of a life for insurance by the company depends to a large extent on the information supplied by the proposer. As the company solicits proposals from the general public whose members are total strangers to the company there is an urgent need for disclosing all material facts within the knowledge of the proposer to enable the company to come to a decision. The proposer has within his knowledge all the facts which are material to the risk. He is morally and legally bound to disclose all matters which in point of fact are material to the contract. The question as to which information is material to the contract is a wide one. In case of dispute it may be decided by a court or a committee of arbitrators. But this cannot certainly be left to the opinion of the proposer. "Every circumstance is material which would influence the judgment of a prudent insurer in fixing the premium or determining whether he will take the risk." This definition has been embodied in the Marine Insurance Act of 1906 and is equally applicable to life insurance. Nevertheless, the proposer is excused from explicitly disclosing certain facts. These are:

(1) what the insurer already knows,

(2) what the insurer ought to know,

[1] "Principles and Practice of Life Insurance," by Harold A. Young (page 15).

(3) what the insurer waives being informed of,

(4) features which lessen the risk.

We thus see that in an insurance contract each party acts on the good faith of the other. If the proposer conceals or misrepresents material facts, the contract is vitiated. Deliberate concealment or misrepresentation amounts to fraud, and the policy is legally void. Innocent mis-statement or misrepresentation renders the policy voidable at the option of the insurer up to two years.[1] In practice, however, policies are usually allowed to continue, subject to adjustment, if the company is satisfied that there was no intention on the part of the assured to defraud it.

Life insurance was regarded as a contract of indemnity similar to other contracts of insurance even so late as 1854. It will, therefore, be not out of place to note here the contrast that now exists between life insurance and other forms of insurance.

1. Most contracts of insurance are usually annual contracts and the insurers have option to refuse renewal at the end of each and any period of insurance. In some cases the insurer reserves to himself the right to terminate the insurance any time on a proportionate return of premium in respect of the unexpired period of the risk.

   Life assurance contracts are, in the main, long-term contracts, and in the absence of any fault or any flaw the insurer has no option to cancel the insurance.

2. The contingency insured against under a fire, accident or marine insurance contract may or may not occur but the event insured against under life assurance contract is bound to happen.

3. From the above we see that the general contract of insurance continues to be a contract of indemnity, but life insurance has come to be established as an assurance contract. Regarding the life insurance contract, McGillivray says, "the contract of insurance may be to pay on the happening of the event insured against, a certain or ascertainable sum of money irrespective of whether or not the assured has suffered loss or of the amount of such loss if he has suffered any."

[1] See section 45 of the Insurance Act, 1938, as amended by the Act of 1941.

The second test for a valid insurance contract is the existence of insurability interest. The 'insurable interest' may be defined thus:

> " Where the assured is so situated that the happening of the event on which the insurance money is to be payable would as approximate result involve in the loss or diminution of any rights recognised by law or in any legal liability, there is an insurable interest to the extent of the possible loss or liability."

Here again we see that such interest should exist at the time of happening of the event in the general insurance contracts, but is not necessarily so in the case of the life insurance contracts. This is because the former is a contract of indemnity and the latter is a contract of assurance. Taking an example of fire insurance, it is clear that an insured person suffers no loss under a policy if at the time of loss or damage to the property he has no interest in it either as full or partial owner. McGillivray says, ''if the assured has no interest at the time the event happens it is clear that he cannot recover anything because he suffers no damage, and therefore has no claim to an indemnity. Similarly if he has an interest which is limited to something less than the full value of the other matter, he suffers no greater damage than the value of its interest at the time of the loss, and therefore, his claim to an indemnity cannot exceed the value of his interest." He further continues: ''An interest is required by the terms of the contract itself if the promise of the insurer is merely to indemnify the assured against pecuniary loss arising from the event insured against." If the above was not so, insurance would prove to be a good inducement to the deliberate destruction of insured property with a view to making a profit out of the loss.

In this connection life insurance stands on different ground. No value can be assigned to human life in the same way as is done in respect of tangible property. But all the same it is possible to measure the extent of loss that would be occasioned by the failure of a given life. Insurable interest of some kind is necessary to every contract of insurance of whatever kind and any insurance made without such interest is illegal and void.

It is clear from the above that an insurable interest as defined above is an indispensable feature of contracts of indemnity. Life insurance, however, not being an indemnity contract, stands on a different footing and it is now established that provided a *bona*

fide interest exists at the date of the contract no interest need be shown at the date of loss. Similarly the amount recoverable under a life policy refers to the interest at the time of making of a contract. These conclusions are based on successive judicial interpretations and are now universally recognized.

The presumption of insurable interest is assumed in several cases :—

(1) Insurance by individual on own life. (On this subject Bunyon says: "Every man is presumed to possess an insurable interest on his own life since by insuring it he can protect his estate from the loss of his future gains or savings which might be the result of his premature death; and as that cannot be limited neither can the amount for which he can insure.")

(2) Insurance by a wife on the life of her husband.

(3) Insurance by a man on the life of his wife.

(4) Creditor on the life of his debtor.

(5) Sureties on the life of the principal.

(6) Trustees in respect of the legal rights or interest in the trust property vested in them.

(7) Firms on the life of key employees or representatives.

(8) A business partner on the life of a co-partner.

(9) Insurer has sufficient interest to re-insure.

In the cases mentioned above, we find that there is a definite pecuniary interest existing in cases (4) to (9). In cases (2) and (3) we find that family relationship of husband and wife is also recognised as an insurable interest. It is interesting to note that family relationships other than the one mentioned do not ordinarily constitute insurable interest for the purpose of valid life insurance contracts. There are, however, a few exceptions.

In England the burial charges of a child within a specified small limit is allowed by the Industrial Insurance Company Act, 1923. The Assurance Company's Act of 1909 legalises policies insuring moneys to be paid for the funeral expenses of a parent, grandparent, grandchild, brother or sister. These policies are issued by friendly societies and industrial assurance companies. There is no

clear law on this point of insurable interest in India. And even in England judicial interpretations have been conflicting even in apparently analogous cases.

We will now deal with the third consideration, viz., the representations and the warranties. As stated before, full disclosure of material information having a bearing on the risk is necessary on the part of the proposer. This is due to the principle of *uberrima fides* that governs the insurance business. The statements made by the proposer in the proposal form and in his statement before a medical examiner are, in legal language, either representations or warranties. The Marine Insurance Act, 1906 (England), gives the following definition of a warranty:

> "A warranty is a statement by which the assured undertakes that some particular thing shall or shall not be done, or that some condition shall be fulfilled, or whereby he affirms or negatives the existence of a particular state or fact."

This Act states further that

> "A warranty as above defined is a condition which must be exactly complied with, whether it be material to the risk or not."

The other replies given by the proposer which are not intended to have the force of warranty are known as representations. Differences between representation and warranty are as follows:

Representations	*Warranties*
1. Need only be substantially correct.	1. Must be strictly and literally true.
2. Must be shown to be material before the misrepresentation can be considered as sufficient cause to void the contract. In other words, the nature of the mis-statement made must be proved to have acted as an inducement to the insurer to accept the risk which he would not have done if the correct replies were given.	2. Any mis-statement is sufficient to void the contract, whether it be material or not.
3. Not necessarily incorporated in the policy.	3. Must be incorporated in the policy either expressly or by reference.

In life insurance there is a recital clause by which the answers given in the proposal and the replies made to the medical examiner are made the basis of the contract and thereby given them the effect of warranty. There is an Indian company that issues along

with its policies photographic copies of the replies given by the proposer which are the basis of the contract.

Obviously, therefore, any mistake in such replies vitiates the policy and no claim would be entertained under it. The present tendency of the offices is to treat the replies as representation. Any mis-statements are, therefore, judged from this angle and if the company thinks that the mis-statement is material, that is, the knowledge of the correct statement would have influenced the decision of the company adversely, the insurer can seek to avoid the policy on the ground of non-disclosure or mis-statement and must also offer to return the premiums. The law courts also do not favour any unfair rigidity in the interpretation of answers to the questions in the proposal form. Even then it is always desirable on the part of the proposer to warrant the answers to the best of his knowledge and belief. This materially safeguards his interests.

A contract is vitiated when it contains some flaw which renders it legally of no effect. In life insurance the breach of warranty voids a contract absolutely.

The other cases in which it becomes void are as follows:

1. Mistake.
2. Illegality.
3. Fraud.

The contract becomes voidable on account of innocent mis-representation or non-disclosure. In the above cases the contract is said to be vitiated and is voidable at the option of the insurer. As stated above, if the insurer seeks to void the policy he must show that the non-disclosure or misrepresentation was material to the assessment of the risk and was of such a nature as would influence the judgment of a prudent insurer.

We have just seen that a policy may be void on the ground of mistake, fraud or illegality. It is also voidable at the option of the injured party under certain circumstances. In such cases, the insurer may not pay the whole sum assured, but may be bound to return the premiums already paid. It is because if a policy is void *ab initio* the risk has never been covered and, therefore, no premiums have been earned. On the other hand, if the risk has once commenced under a valid policy the entire premium is deemed to have been earned by the insurer and no return can be claimed by the

assured if under changed circumstances the contract is rendered void in future. In cases where the insurer seeks to void a policy on grounds of non-disclosure or misrepresentation, he is in equity bound to offer the return of premiums, but in practice, life offices provide for the forfeiture of all premiums paid. To obviate the difficulties of the assured, the offices generally have an indisputability clause in their policies and all answers given in the proposal and the medical report become indisputable after a period of two or three years. After this period the policy cannot be called into question except on grounds of fraud and illegality. The above indisputability clause has been made a part of the Insurance Act of 1938 to which reference would be made later.

After a life policy is issued, it ordinarily continues to be on the books of the company for several years. Conditions attach for the payment of premiums to keep the policy in force and there are several options in case of failure or delay in payment. There are other benefits, such as loan benefits and disability benefits during the currency of the policy. The determination of a life policy is either by death or survival beyond a certain period and the payment of money is sometimes delayed on the question of getting a proper discharge due to faulty assignment or litigation over the question of rightful owner to the estate of the deceased.

As we have stated earlier, the business of insurance is based on the collective idea of a group. Insurance companies sometimes deal with very large groups—many of whom are total strangers to the company and ignorant of the complexities of the business. In the course of operations, companies have to accumulate very large funds, sometimes running into crores of rupees, to meet the liabilities of the business which most lie in the future. Defects and losses can be successfully camouflaged for a long time and this enables unscrupulous persons to misappropriate the funds. The business of insurance is chiefly done through agents and their duties, rights and relation to their principal (the company) and to the general public are to be clearly defined.

In such a vast and complicated business, fraud is by no means absent, and it is not always that unscrupulous persons under the guise of company promoters cheat the ignorant general public. Members of the public also attempt fraud on companies and instances are not rare where agents have attempted to play false either

on the company or the general public. The importance of the business from the individual policyholder's point of view is immense; for it is here that often his annual savings go. With the huge accumulated funds the influence of insurance business on the credit structure of society is also great and a failure of such an institution should therefore be avoided.

Summarising, we see that the business of insurance is essentially contractual but it raises several other problems due to its peculiar character. The Contract Law being alone insufficient to cover the needs of the business, it has been thought desirable to have a consolidated Insurance Law covering all aspects of the business. The general law of contract no doubt has supplied the basic ideas for the law of insurance, but these have been profoundly modified by the special needs of the insurance business in particular through judicial interpretation placed on questions brought before the courts of law.

The scope and the extent of the Insurance Law varies in different countries. In Canada, U.S.A. and some countries in the continent of Europe, the business of insurance is under direct control of the Government. They issue licences

(1) authorising the companies to carry on business in the country,

(2) to keep in its own custody or control an amount sufficient to meet the liabilities of the company, and

(3) to control the investments of the funds of the company.

On the other hand, in England and some other countries the laws do the minimum amount of interference in the working of the companies and require maximum amount of publicity about their working so that the general public may decide for themselves. They insist on a certain amount of deposit being paid in, not with the object so much of protecting the policyholders as of preventing the formation of mushroom companies, and subject to that, leave everything to the public by providing for publication of all material facts with regard to

(1) the volume of business,

(2) the income and expenditure, and

(3) the investments.

In India the Life Insurance Act of 1912 was based on this principle of "minimum interference coupled with maximum publicity." There was considerable opposition to this. The working of the Act also brought out several defects and an attempt was made in the Insurance Act, 1938, to remedy them. Suffice it to say that due to the rapid growth of public opinion and the incessant demand from commercial bodies and business interests, Government control has been increased and the scope of the law has been considerably widened.

Insurance Legislation in India. Statutory legislation in British India with regard to insurance is of comparatively recent origin and may be said to date properly from 1912. We may, however, just mention some earlier Acts—Act X of 1866, Act on the Assignment of Fire and Marine policies, and two other similar Acts passed at about 1893. Companies which commenced their business in the early eighties were either incorporated under Act X of 1866 (e.g., Bombay Mutual) or were governed by the provisions of the Indian Companies Act of 1882.

In the first decade of the present century a large number of insurance companies and provident societies sprang up due to the strong *swadeshi* movement in the country. But on account of insufficient control under the provisions of the Companies Act, many undesirable tendencies, especially with regard to provident societies, became patently clear. The Government of India decided to introduce two separate pieces of legislation to provide for the better control of the two classes of business. Two Bills were introduced in the Imperial Legislature in 1911 by the Hon. Mr. Clark, Member in charge of Commerce Department. They subsequently became enacted as Act V of 1912 (Provident Insurance Societies Act) and Act VI of 1912 (Indian Life Insurance Companies Act). The former Act deals with societies which transact life insurance within certain limits and undertake insurance on marriage, sickness and other cognate classes of insurance business on a small scale and was to be administered by the local Governments. This Act was based on the Friendly Societies Acts of England.

Act VI of 1912, as its name suggests, dealt only with life insurance companies and was administered by the Central Government. This Act was based on the English Insurance Companies Act of

1909, with the difference that the Indian Life Insurance Companies Act relates to life insurance only and does not deal with the other forms of insurance, viz., fire, marine or other miscellaneous kinds of insurance, properly known as accident insurance business. The reason given for omitting the other classes of business at the time was that there were very few Indian concerns carrying on business other than life insurance in India and that the conditions of insurance in India did not call for any legislation as to these. The result of the absence of any legislation governing general business was to give the foreign companies, which had practically a monopoly at the time in this class of business, complete freedom in their activities.

Even within the limited scope pertaining to life insurance business, the Act of 1912 did not come up to the expectation of non-official members. Their chief objections were that no provision had been made with regard to the following:

1. Absence of deposit from foreign companies.
2. Absence of substantial deposit from Indian companies which would prevent mushroom companies from coming into existence.
3. Absence of restriction on investments.
4. Exemption granted to foreign companies from submitting particulars of their Indian business.
5. Absence of administration of the Act by a separate department.
6. Absence of power to the Government Actuary to order investigation into the conduct of a company even if it is known to be unsound.
7. Power granted to the Governor-General in Council to grant exemption to companies from the requirements of the Act.

To prevent the formation of mushroom companies, the original Bill required an initial deposit of Rs. 1,00,000 and the balance by instalments till it reached the total of Rs. 2,00,000. The Select Committee of the Imperial Legislative Council in 1912 modified the clause and required Rs. 25,000 as initial deposit followed by

deposit of one-third of the gross receipt of the life assurance business until the total reached Rs. 1,00,000, and thereafter one-third of the net profit derived from life assurance business until the total reached Rs. 2,00,000. Thus company promoters who could scrape together a sum of about Rs. 25,000 towards first deposit could float a company. With the fall in price of Government securities a sum of about Rs. 18,000 became sufficient to purchase the required securities of the face value to be deposited. There was no stipulation as regards any working capital, and the new companies paid for their expenses of business out of the premium income, thus preventing the satisfactory growth of the companies.

The question of demanding deposit from foreign companies was raised not as a means of securing complete protection for Indian policyholders, but as a means to prevent foreign companies from coming in in large numbers. It was pointed out by the Hon'ble Mr. Subba Rao that under the 1909 Act of England, a deposit of £20,000 was compulsory for English as well as foreign companies and had to be provided so long as the insurance company did business in England. The authors of the legislation were aware that £20,000 cannot meet the whole liabilities, but they knew it would prevent mushroom companies from entering the field. The Hon'ble Mr. Subba Rao persisted that he could not understand why the Government of India should exempt English companies working in India from the payment of deposit, while they were required to make such deposits in Canada, Australia, etc., if they did business in those countries.

Discussing the absence of restriction on investments, the Hon'ble Mr. Mudholkar pointed out that it may be good in a country like England where, due to wide publicity, the enlightened public could judge the position of a company. Conditions in India were different and restrictions should be imposed on investments of Indian companies. He moved an amendment that life insurance funds should be invested in Trustee securities under the Indian Trusts Act, 1882. The amendment was, however, negatived.

Foreign companies, whether British, Colonial or others, doing business in England and submitting their returns to the British Board of Trade were to submit the same reports in India. But separate particulars regarding the business done in India were not

demanded, and the absence of these made it impossible to get any idea of the cost of procuring business in India for foreign companies and comparing them with similar data of the Indian companies.

The other criticism levelled against the Act was the absence of a statutory power for the Government Actuary to order investigation into the conduct of a company. This deficiency stood out glaringly and was injurious to the interests of policyholders. The English Insurance Act of 1909, on which the Life Insurance Act of India was based, was also defective in this respect and the Board of Trade had only limited powers and could not order the winding-up of a company even if it was known to be insolvent. This defect was clearly brought out by the failure of the City Life and National Benefit Assurance Company, which transacted a large amount of business even long after it had ceased to be solvent.

The last objection then raised in connection with the Act was against the general powers granted to the Governor-General-in-Council to grant exemption to any life assurance company from any of the provisions of the Act, and several companies that ceased to underwrite new business were granted exemption even from submitting reports to the Government, although the business already transacted continued to be in force. The policyholders were put in a difficult position as they had to carry on correspondence either with the Head Office of such companies or with their agents in India appointed to administer the business. In this latter alternative all quotations of surrender, loan or cash values or the extent of any benefit had to be confirmed by the Head Office concerned with inevitable delay that caused great inconvenience to the policyholder.

Apart from the defects mentioned above, several others became clear during the operation of the Act, and a few were modified by subsequent Acts. One such minor alteration was done in 1916 and another in 1919. The latter amendment enabled the Government Report to be published in a consolidated form, thereby saving a lot of expense and time. Persistent demands were made by public bodies for statutory provisions for disclosure and publication of the business carried on in India by non-Indian companies principally in the fields of fire, marine and other forms of miscellaneous insurance. The Government of India agreed to amend the law and

in 1925 introduced in the Legislative Assembly a draft Bill of the proposed new Act intended to provide one comprehensive piece of legislation applicable to all insurance companies working in British India. The Bill was sent out and circulated for opinion. Opinions were received with regard to the provisions of the proposed Bill from all shades of people, including local Governments, public bodies and individuals having technical knowledge upon the subject, and sufficient materials were collected together to enable the Bill to be pushed through. In the meantime a committee presided over by Mr. A. C. Clauson, K.C., was set up in England to enquire into and report on the amendments necessary to bring the Act of 1909 to date. The Government of India decided to wait and take advantage of the findings of the Committee and therefore dropped the Bill. The Clauson Committee Report came out in February 1927 and made several recommendations, and in order to expedite matters annexed a draft Bill to their report.

The Government of India passed the Act XX of 1928 to enable them to collect statistical information regarding life and general insurance business in respect of the business carried on by non-Indian and Indian companies. It also dealt with the question of distribution of surplus assets in the event of liquidation of a life company. The main idea underlying the above legislation was to collect data, while Parliament was engaged in considering the Clauson Committee's Report, so that they could be used at the time of legislation in India.

The application of the surplus assets of a company in the event of liquidation deserves more than a passing reference. Formerly a company with a limited share capital doing successful business could be put to voluntary liquidation by shareholders. After providing for the liabilities guaranteed, the surplus assets could be appropriated by the shareholders themselves. In a thriving concern the shareholders have insignificant stake in comparison to the interests of the policyholders and in the absence of any legal restriction there was a strong temptation to the shareholders to put a going concern into liquidation and appropriate to themselves the surplus assets. Therefore, it was legislated that in the winding-up of a life assurance company the surplus of assets over liabilities would be distributed amongst the policyholders and shareholders in the same proportion as the profits were allocated

between them during the ten years immediately preceding. In cases where there had been no such allocation, or it appears that by reason of special circumstances the above arrangement would be inequitable, the court may use its discretion.

Although the Clauson Committee Report was presented to Parliament in March 1927, no legislation was undertaken for several years. (Only recently did the King in his message to Parliament refer to the Insurance Bill and this has again revived hopes for early insurance legislation in the United Kingdom. It is, however, certain that no legislative measure will be undertaken during the continuation of the war.) But the slow progress of events in the United Kingdom again revived the agitation for amendment of the law of insurance in this country, independently of the English statute. Various defects were also found out in the workings of the old Act and, due to the continuous agitation and representation by commercial bodies, the Government of India decided to undertake legislation on its own account. An officer on special duty was appointed to report on the law of insurance. On the basis of this report, which was submitted in November 1935, an Insurance Bill was drafted and was introduced as an official measure in the Legislative Assembly on the 27th of January 1937. The Bill was referred to a Select Committee which met in August 1937 and made several changes. The Select Committee Report had the unenviable distinction of being probably the only report to which every member of the Select Committee had to append a minute of dissent.

The Bill underwent several changes in the hands of the Legislature before it emerged as the Insurance Act of 1938 (Act IV of 1938). But further defects became apparent and were subsequently removed by two amending Acts of 1939. Some alterations were further made in 1940 and in early 1941. A major and comprehensive Amendment Act has been recently passed by the Legislative Assembly. This Act is very comprehensive in nature and it is believed that at least for some time no more piecemeal legislation will be necessary to amend the Insurance Act. Sir A. Ramaswamy Mudaliar, the present Commerce Member, in his reply during the third reading of this Bill, said that he hoped the chapter of amending Bills to the Insurance Act was for the time being at an end.

Before we discuss the salient points of the Act, we will take a short retrospective view of the changes that were suggested by the

report of the special officer, the Bill that was based on the report, its modification before it was taken up for consideration by the Houses of Legislature, etc. The report of the special officer was based upon

(1) the representations made to the Government of India from time to time by public bodies, individuals and local Governments,

(2) the papers used in connection with the Bill on the subject drafted by the Government of India in 1924, and

(3) the suggestions made by most of the local Governments and public bodies after the appointment of the special officer.

He came to the decision

(1) that the new Act should govern all kinds of insurance except provident insurance which should continue to be governed by a separate Act, and

(2) that the Legislature should follow the principle of minimum interference and maximum publicity in framing the Act, although the extent and nature of Government control had to be considerably modified.

The Bill was drafted by the then Law Member, Sir N. N. Sircar, on the basis of this report. He was helped in his considerations by an Advisory Committee in which British and Indian interests were represented. In several respects the Bill introduced was modified from the report on which it was based. For example, the Bill covered provident insurance societies which the report of the special officer had suggested should be governed by a separate Act as hithertofore. It was introduced in the Legislature in January 1937 and was referred to a Select Committee of the Legislative Assembly. Here several changes were made. The Select Committee recommended that

(1) all the funds should be invested in Government securities,

(2) 10 per cent. of the re-insurance in general business by foreign companies should be placed with Indian companies.

Many changes were made in the Legislature, and amongst others the above two recommendations were dropped. The first

recommendation could not be achieved in practice as the assets against life funds also include loans to policyholders, furniture, fixtures, outstanding premiums, etc. The second provision for compulsory re-insurance was objected to by the Law Member as savouring of discrimination against British companies, which he was not prepared to accept in view of section 113 of the India Act of 1935. He admitted the justness of the suggestions, but due to the above difficulty could not agree to accept it and even went to the extent of saying that if it was endorsed by the House, the Government would withdraw the measure.

It should be mentioned here that several insurance and commercial associations prepared their cases from their own viewpoints. The Legislation Committee formed by the Indian Life Assurance Offices Association and the Indian Insurance Companies Association was an influential representative body composed of men with practical experience, who did great service in suggesting measures and in explaining the full implication of others brought forward. Amongst the other associations that were very active were the Association of the younger companies who raised a cry that the older and better established companies wanted to drive them away and enjoy a monopoly. British interests were well organised and even a representative of Lloyd's travelled all the way from England to watch its interests. The Chief Agents of foreign and Indian companies and the Managing Agents strove their utmost to keep their interests intact.

Everybody was anxious to safeguard the interests of the policyholders and over a thousand amendments were tabled in the Legislature, many of which were impracticable. Some amendments managed to find their way into the Bill and were subsequently modified in the Upper Chamber. When the Bill emerged from the Assembly there were many drafting mistakes, contradictions and unmeaning provisions and they had to be amended in the Upper Chamber. "This is all due to the fact that the Government and the Opposition did not consult the insurance men as much as they should have done, nor did they take advantage of the voluminous labours that they had put in and the many suggestions they had put forward," said Pandit K. Santanam, in his presidential address at the tenth Annual General Meeting of the Indian Life Assurance Offices Association held at Lahore in March 1938. The introduction of the

Act was delayed due to several reasons such as the absence of rules under the Act to be framed by the Superintendent of Insurance who was appointed only in 1938, and the detection of several anomalies in the drafting and the provisions in the final form of the Act, which were modified by two amending Acts in 1939. The Act came into force from 1st July 1939 by a *Gazette* notification.

One more amendment, called the Insurance Amendment Act, 1940, was passed in March 1940. The principal amendments suggested relate to an extension of the definition of "approved securities" designed to assist British Indian companies to secure reciprocal concessions under section 116 of the Insurance Act, 1938. The other amendments relate to modification of several matters in order to remove flaws and administrative difficulties brought to light during the period of six months of the operation of the Act. Two more amending Acts were passed in 1941. One of them is comprehensive in nature and we will deal with it at a later stage.

We will now discuss the salient features of the Act. As stated before, the Act applies to all types of insurance business—life, fire, marine and others—transacted by companies incorporated in British India, the United Kingdom or elsewhere. Provident insurance is also governed by this Act and a separate sub-section is allotted to it. Unlike the previous Acts, this Act has dealt with the mutual and co-operative societies separately and the provisions applicable to them have been suitably modified to meet the special requirements of such companies. Assessmentism or dividing insurance business has been prohibited. To prevent the formation and continuance of mushroom companies the Act provides for registration of all the companies and a substantial initial deposit of Rs. 50,000 in securities to be raised to a total of Rs. 2,00,000 within a stated period.[1] The Act provides for refusal to register unless a sum of at least Rs. 50,000 is collected for working capital over and above the sum necessary to meet the compulsory deposit and preliminary expenses. The filing of statements and accounts with

[1] The first Insurance Amendment Act of 1941 permits the payment of reduced instalments of deposits during the continuation of the war and one year afterwards by companies doing life insurance business only, who commenced to issue life policies during the ten years prior to the outbreak of war on 3-9-1939. This relief has been granted, subject to conditions, to such small insurance companies who are experiencing a fall in new business and of lapsing of existing policies due to war.

the Superintendent of Insurance has been made compulsory even in the case of British and foreign companies and a maximum time limit of nine months has been fixed within which they should be submitted on risk of prosecution and, possibly, of winding-up.

The details of the returns to be submitted have been altered, and British and foreign companies are required to submit details of their Indian business, the funds employed and the profits earned therefrom. The valuation of Indian business by foreign and British companies will now enable us to make a true comparison of the system of underwriting business by different companies. Bonus and dividends will be payable out of actuarially ascertained surpluses. The standard policy forms employed by companies and tables of life premiums approved by an actuary are to be deposited with the Superintendent. Other provisions made for the continuance of business on sound principles are:

1. The licensing of agents.
2. Limitation of commission payable for the first year's business and renewal.
3. Prohibition of rebates.

The above three conditions are expected to control excessive expenditure now incurred in remunerating agents and to do away with unfair competition amongst companies. Relief has been given to companies which have been less than ten years in existence, by permitting them to pay an extra 15 per cent. for the first year's commission and 1 per cent. for the renewal up to the first ten years of their existence.

Several provisions have been made to preserve the assets and to prevent misappropriation of funds. With this end in view the Act has made the keeping of certain books compulsory. The most important of them are the following:

(1) Register of Policies Issued,

(2) Register of Claims,

(3) Register of Funds and Investments, and

(4) Ledger and Cash Books which will show the income and expenditure under several headings.

The investment of funds has been restricted, and provision has been made for investment of not less than 55 per cent. of the life

fund and the liability for matured claims less any deposits made to the Superintendent under the Act, and loans granted on policies maturing in India and within their surrender values, in the following manner:

> 25 per cent. in Government securities, and a further sum equal to not less than 30 per cent. of the said sum in Government or approved securities, or securities of, or guaranteed as to principal and interest by, the Government of the United Kingdom.

The above provision regarding investment applies to Indian companies and also to insurers incorporated in or domiciled in the United Kingdom. The foreign companies are required to invest and hold invested assets equivalent to not less than the sum of their liabilities to be arrived at, as explained above, in the case of Indian and British companies in the following manner, viz.,

> 33⅓ per cent. of the said sum in Indian Government securities, and the balance in Indian or British Government, or approved, securities.

A maximum limit of four years is allowed for the existing companies to adjust their investments and to comply with the above conditions. Certified statements of assets are to be submitted to the Government showing that the insurer has complied with the requirements of section 27 of the Act. Originally it was required twice a year within thirty-one days of 30th June and 31st December. This provision has been now amended by the Insurance Amendment Act 2 of 1941, and only one certified statement of investments of assets and all other particulars is necessary to establish that the requirements of section 27 have been complied with. Further, quarterly statements will also be required within a fortnight of closing of each quarter year showing a certified statement of assets. The Superintendent of Insurance, however, is empowered to call for, at his discretion, a full detailed statement of investments of assets and other particulars indicating that section 27 of the Act has been complied with as on 30th June, and this will be required to be submitted within the month of July of any year. The period of submission of the above statements may be extended to 30 and 60 days in case of companies whose principal place of business or domicile is outside British India.

The insurer is prohibited from granting loans or temporary advances under any circumstances except loans on life policies

issued by him within their surrender values, to any director, manager, managing agent, actuary, auditor or officer of the insurer if a company, or where the insurer is a firm, to any partner therein or to any other company or firm in which the above people hold positions as noted above. This condition does not apply to banking companies. All existing loans are to be repaid within a year of the commencement of the Act; otherwise the defaulter shall cease to hold office at the end of the period.

Special provisions have been inserted in the Act to safeguard the interests of policyholders. Policies have been made indisputable after two years from the date on which they are effected; and the existing policies after two years of coming into force of the Act. After this period the insurer cannot call a policy in question on the ground of inaccurate or false statement or false statements by the medical examiner, referee or friend or in any other document leading to the issue of the policy, unless the insurer shows that such statement was on a material matter and fraudulently made by the policyholder and the policyholder knew at the time of making it that the statement was false. Some companies already have this " Indisputability clause " as one of the conditions of their policies while some put it in their prospectuses only.[1] Provision has been made to inform the policyholder of the options available to him within three months of the non-payment of a premium due. A proviso has been added to the section relating to this clause which provides that no intimations of options which appear in the policy need be sent to the policyholders. A further provision guarantees surrender values if the premiums are paid on a policy for three years and the policy will not lapse by reason of non-payment of further premiums, but shall, notwithstanding such non-payment, be kept alive to the extent of its paid-up value provided it be not less than one hundred rupees.[2] Life policyholders are now entitled to elect not less than one-fourth of the whole number of directors and it is believed that such representation will be helpful to safeguard their interests. In the case of dispute, policyholders are now entitled to sue companies in any court of competent jurisdiction in British India and if the suit is brought in British India any question of law arising in connection with any such policy shall be determined according to the law in force in British India.

1 See page 254.
2 See page 255.

A separate department under the Superintendent of Insurance has been set up under the Act. Its duties are to see that all insurers comply with the provisions of the Act, and to publish annually the summary of returns. Unlike the previous Government Actuaries under the old Acts, the Superintendent of Insurance has been granted executive powers. If it appears to him that any return furnished to him under the provisions of the Act is inaccurate or defective in any respect, he may require from the insurer certified copies of further information, and may even order examination of the books of accounts, registers or other documents or examine any officer of the insurers. As an extreme measure he has been given the right to refuse to accept any return which he thinks to be inaccurate, and in such a case the insurer shall be deemed to have failed to comply with the requirements of the law with regard to deposit of accounts. Further, if it appears to the Superintendent that an investigation or valuation of an insurer does not properly indicate its condition by reason of the faulty basis adopted, he may cause an investigation or valuation to be made at the expense of the insurer. This power of investigation has now been extended to apply to all valuations of the insurers.[1] The insurer may apply to a court to set aside the orders of the Superintendent and to ask him to accept the returns refused by him. It has now been provided that such application to the court must be made within three months of the order of the Superintendent.[2] Under a separate section the Superintendent has been given general powers to order inspection, if he is satisfied that an insurer is unable to meet his obligations or has made default in complying with any of the provisions of the Act or that an offence has been or is likely to be committed by an insurer or any officer of the insurer; or if he receives requisition on this behalf from at least one-tenth of the shareholders of a company holding not less than one-tenth of the share capital or receives a requisition from fifty policyholders holding amongst them life policies which have been in force for not less than three years and to the total value of Rs. 50,000. To prevent frivolous cases against insurers, all proceedings to be instituted against an insurer must have previous sanction of the Advocate-General of the Province. This, however, does not apply to proceedings instituted by the Superintendent of Insurance. The amalgamation

1 See section 22 of the Insurance Act, 1938, as amended by the 1941 Act.
2 See section 21 of the Insurance Act, 1938, as amended by the 1941 Act.

and transfer of insurance business by the companies must be sanctioned by a court having jurisdiction over the one or the other insurer concerned. The Central Government has been given power to frame rules under the Act which would be effective unless both Chambers of the Central Legislature agree within a specified period of one month to amend or to drop a rule.

Amongst the several other provisions in the Act, the following may be mentioned with advantage. A policyholder can now nominate a beneficiary under his policy without assigning the same, and change the beneficiary at his will subject to payment of fees for registering such changes. This enables the policyholder to preserve his rights to deal with the policy as he likes during his lifetime. This removes one of the hardships arising out of assignment of policies where in a conditional assignment the consent of the assignee is also required before the policyholder can enjoy any benefits under the policy. The priority of claims under assignments is now regulated by priority of notices received by companies. This was not the condition under previous Acts, which did not make notice to the companies essential. It also legalises conditional assignments, irrespective of any other law or custom having the force of law to the contrary. This condition particularly benefits Mahomedan policyholders who under the Muslim law could not make a conditional assignment, all such assignments made by them becoming absolute.[1]

Companies can now avoid the charges of non-payment of claims in cases where conflicting claims or insufficiency of proof of title prevent them from obtaining a satisfactory discharge for the money to be paid, by depositing the sum in the court. The court shall accept such sums not earlier than six months and not later than nine months from the date of maturity of the policy or notice of claim received by the company. The insurer, however, continues to be liable for all costs that the court may incur in connection with the disposal of the amounts deposited with it. This provision has now been slightly modified which makes the payment of money in court optional to the company instead of obligatory as it was before.

The employment of managing agents has been prohibited under the Act. Irrespective of any agreement, existing managing

[1] This privilege of "nomination" should be extended to certain types of accident insurance policies.

agents shall cease to hold office on the expiry of three years from the commencement of the Act and no compensation shall be payable to them by insurers by reason only of the premature termination of their employment as managing agents. It has been further provided that the remuneration of the managing agents shall not exceed Rs. 2,000 per mensem in all, including salary and commission during this period of three years.

The Central Government has been empowered to exempt any insurer constituted, incorporated or domiciled in an Indian State from the provisions with regard to deposits or the provisions on the keeping of assets in India, either absolutely or subject to conditions that it may deem fit.

Another important provision of the Act is the one which rigorously penalises

(1) the non-observance and contravention of the requirements of the Act;

(2) the submission of false returns, certificates, or other documents required to be submitted to the Superintendent, and

(3) the wrongful withholding or obtaining of properties of insurance companies.

Last but not the least important provision of the Act is the right and power of retaliation against foreign companies working in India, if the laws or practice of such countries debar Indians from carrying on the business of insurance there. If any restrictions are put upon Indian insurance which is not imposed upon insurers of a particular country, under the Indian Act, similar conditions shall be imposed upon the insurers of that country carrying on business in India.[1]

These, in short, are the main provisions of the new Act. There is no doubt that the present Act is a distinct advance on the previous law. But it has its own shortcomings and we will discuss a few of them. The difficulties mainly arise in the interpretation and the scope of the clauses. Thus the indisputability clause (clause 45),

[1] The Government of India has ordered that the Canadian companies doing life insurance or fire insurance only are required to deposit a sum of Rs. 3,00,000 against Rs. 2,00,000 required to be deposited by the Indian companies. This step has been taken, it is presumed, in consequence of certain special requirements imposed by Canada on Indian insurance companies. (From *Times of India Insurance Supplement* dated 29th December 1939.)

if applied to submission of age-proof also, will turn out to be of great hardship to life insurance companies. An attempt has been made to obtain interpretation from the Superintendent of Insurance, but the reply given is that opinion should be had from counsel and in case of dispute the decisions of courts will be binding. Counsel's opinions on this question are as usual widely different. Some hold that the clause embraces the age-proof also, and a company is debarred from making any alteration in the sum assured even if the correct age is found to be higher. Some counsel go to the extent of saying that the inclusion of a condition voiding the policy, if age-proof is not submitted during the first two years, will be of no consequence in a court of law. But such drastic implication could not have been contemplated by the framers of the Act or the Legislatures. The strict interpretation of the Act, therefore, will necessitate the submission of age-proof along with a proposal. As this is hardly practised by any company, there would be a fall in new business. Once, however, the general public became accustomed to the new condition, things would improve.[1]

The Superintendent of Insurance holds that the life policy-holders' directors will have full control over the management of the general business, and its assets in a composite company. This appears hardly justifiable and is rightly resented.[2] The difference between companies transacting life and general insurance businesses should have been maintained.

The commission payable to agents has been restricted, but no attempt is made to control the maximum expense a company could incur both initially and from year to year. This was partly due to the opposition of young companies, but special provision could have been made for them for an initial period of, say, ten years. The commission of chief agents ought to have been limited too. The definition of a chief agent, no doubt, presents some difficulties. Special provisions for the chief representatives of

1 Since the above criticism, the Insurance Amendment Act 2 of 1941 has been passed. Section 45 has been slightly modified and the following proviso has been added: "Provided that nothing in this section shall prevent the insurer for calling for proof of age at any time it is entitled to do so and no policy shall be deemed to be called in question merely because the terms of the policy are adjusted on subsequent proof that the age of the life insured was incorrectly stated in the proposal."

This speaks for itself.

2 Chairman's speech by Sir C. V. Mehta, New India Assurance Co., on 27-6-1939, presenting the Annual Report for 1938.

foreign companies could have been made. The total remuneration to be drawn by chief agents should have been fixed, otherwise the benefit of the limitation of commission to agents would be nullified. Several offices have already commenced to invite applications for " chief agents " in every district. This means that such companies will be able to pay higher commission rates to their representatives styled as chief agents and thereby secure more business than their competitors, who would find it difficult to retain the services of their productive agents by the payment of restricted commissions as provided by the Act.

The clause relating to the acquisition of surrender value (section 113) does not seem to cover Whole Life policies; for it relates to a policy wherein a definite number of premiums are payable. This benefit should have been easily extended to Whole Life policies and a method of ascertaining their paid-up values inserted.[1] Similarly the clause relating to declaration of interim bonus (section 112) does not take into consideration policies that are made paid-up during the inter-valuation period.

The motive that actuated the restriction of investments was good; for it looked to preservation of assets and thereby to the interests of policyholders. But how far the Act will achieve this end by restricting a large portion of investments to Government and approved securities remains to be seen. We have discussed at some length the principles of investment and the effects of the above restriction in a preceding chapter.

The Act makes no reference to re-insurance business done in India. It is true that no Indian company transacting re-insurance business exists in India and there is no branch in India of any foreign or British company doing re-insurance business alone. But in case a body of insurers commence re-insurance business in India, the point will have to be decided at law whether the present Act equally applies to re-insurance business. The English Act of 1909 on this point is similarly defective. In the National of Copenhagen case decided in the U. K. about seven years ago,[2] it was held that

[1] This clause has been suitably amended to include the Whole Life policies. It now also clarifies the conditions under which policies issued by insurers will acquire surrender value and now requires that such guaranteed surrender values shall be shown in the prescribed manner in all policies at the close of each year after the second year of its currency. The method of calculating the paid-up value of a Whole Life policy (premium payable throughout the duration) is shown on page 150.

[2] *Policy*, 16th December 1937.

the 1909 Act applied equally to re-insurance companies as to direct offices. This is the law as it is now in England and all the British re-insurance companies have made deposits which the Act requires, though not all of them submit their accounts to the Board of Trade in the prescribed forms. It is obvious that the strict interpretation of the 1909 Act in relation to re-insurance business was not foreseen largely because re-insurance as a separate business was but little practised then. The Clauson Committee of 1927 in the U. K., therefore, recommended the exclusion of re-insurance companies from the purview of any new Act which may be passed; but nothing has been done so far. Re-insurance offices from other countries have business in India, but this is by way of treaties and does not involve the setting up of any branch or agency organisation. They, therefore, do not come under the purview of the Indian Act and have been exempted from its requirements regarding registration, working capital and deposits (clause 103).

The Act applies equally to general insurance business as distinct from life insurance. Separate sub-sections should have been provided for the business of general insurance. This point was often stressed in the Legislature, but was ignored. Several clauses of the Bill, therefore, became cumbersome and defects crept in, many of which have been set right in the Upper House. At one stage of the Bill an actuary's certificate about table of premia was made essential for all companies. Pandit K. Santanam strongly puts it and says: " It was not understood by the House that in the table of premia of the general office the actuary has got no part or lot at all."[1] This mistake was later rectified.

On the whole the new Act is an undoubted improvement on the old one. It is likely that the working of the Act will bring to light new difficulties which were not anticipated. No law can be perfect from the outset and necessary adjustments have to be made later. This would enable the necessary changes and adjustments to be made speedily. We have referred to the Insurance Amendment Acts of 1940 and 1941 passed recently to remove certain difficulties in the operation of the Act. The major second Insurance Amendment Act of 1941 has been recently passed in order to remove flaws and administrative difficulties which have come to light during the

[1] Presidential speech at the Indian Life Offices Association held at Lahore, March 1938.

operation of the Act and to amend and add certain provisions considered desirable.

We have indicated some of the changes in the course of our discussion itself. A few of the important remaining changes may be mentioned here. The Reserve Bank of India is now permitted to charge their nominal commission, on the sale of or investment in, securities kept lodged with them as deposit and which they are required to sell or invest on the request of an insurer. The annual fee for registration of an insurer for each class of business transacted has now been fixed and a sliding scale of fees based on the premium income has been introduced. The Government licence fee has been increased from Re. 1 to Rs. 3, but Sir A. Ramaswamy Mudaliar, the present Commerce Member, has given an assurance that in practice it may not be raised to the maximum of Rs. 3.

The public now can inspect or get copies of documents filed by insurers with the Superintendent of Insurance on payment of requisite fees. Provision has been made for actuarial requirements, as similar as may be, to those to which life insurance business is already subject, for certain types of business which though classed as " miscellaneous insurance " are, nevertheless, susceptible in some degree to actuarial valuation.

An important change has been made by substituting a new section for the entire section 49. In addition to the usual conditions that no bonus to policyholders or dividend to shareholders shall be declared except out of actuarially ascertained surplus, it also lays down that payments made in service of any debentures shall not exceed 50 per cent. of such surplus including any payment by way of interest of such debentures. Interest alone paid on such debentures shall not exceed 10 per cent. of any such surplus. The condition when interest paid may exceed 10 per cent. of the surplus is also stated. This amendment is opportune. It anticipates a cry for mutualisation of insurance companies in future and provides the extent of resources which can be utilised towards this end.[1]

It is hoped that the above changes will help the Indian companies to consolidate their position. It will be a matter of satisfaction if at the end of its period of trial, the Insurance Act as amended to date puts Indian companies on a fully competitive basis with foreign rivals.

[1] See page 261.

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CHAPTER XIV

Conclusion

We have come to the end of our study, and should now gather up its threads. We have seen the necessity and importance of life insurance in our social life. Life insurance encourages the habits of thrift and saving in the community and in addition to giving financial security during the retiring age of the policyholder or protection to his dependents in case of demise, the business of insurance through its investment of accumulated excess premium income contributes its share to the capital resources of the country. A study of the assets and investments of insurance companies enables one to appreciate the stake that insurance companies have in the economic progress of our country. That insurance is an increasingly stabilising factor in the economic life of our country is obvious.

The progress of Indian life insurance companies will be seen from the following figures.

(In thousands of rupees)

Year	New business effected	New premium income	Total business remaining in force including bonus at the end of the year	Total premium income	Total assets
1915 ..	2,24,35	12,00	22,82,57	1,06,74	7,89,74
1925 ..	8,15,16	45,19	47,00,00	2,25,02	14,85,58
1935 ..	32,81,41	1,69,97 4,31*	1,51,63,46	7,10,50	43,85,45
1937 ..	41,73,86	2,17,31 8,48*	1,96,73,62	9,56,66	53,53,94
1938 ..	43,29,59	2,27,68 10,35*	2,03,71,23	10,45,41	59,58,39

* Single premiums.

Life insurance business written in India by foreign insurance companies is shown by the following statement.

(In thousands of rupees)

Year	New business effected	New premium income	Total business remaining in force including bonus at the end of the year	Total premium income
1928 ..	9,55,50	56,69	52,59,51	2,88,52
1932 ..	8,75,04	58,41	79,22,15	4,33,10
1937* ..	9,65,53	86,84	92,60,43	5,26,73
1938* ..	8,41,95	77,62	94,31,02	5,12,07

* The new premium income and the total premium income for the years include single premiums for annuities also.

From the above it will be clear that the foreign companies continue to write quite a large volume of business in India. But it is obvious that they have failed to secure any share in the increased volume of new life insurance business obtained in this country. This entirely goes to the Indian companies. Again, as they will now have to comply with the requirements of the new Insurance Act, their activities in India will be reduced and the amount of business written is also bound to decrease. Further, there is also a growing consciousness among the Indian insuring public to place their life business with Indian companies, and this feeling has been strengthened by the unsettled international situation and its consequent repercussions. There are, however, several important respects in which the business of insurance in this country can be improved.

First, we have seen that life insurance is a process of mutual co-operation among policyholders to eliminate the financial ill-effects of the uncertainty of their individual lives, and by nature, is such that in a progressive company the stake of the shareholders correspondingly decreases and might even become insignificant. Moreover, if a life office is not financially strong when its assurance funds alone are taken into account, the share capital cannot make it a company in which it is advisable to effect assurance. In spite of these facts, however, due to the proprietary character of the business, the shareholders continue to enjoy an appreciable portion of the profits by way of dividends, with the result that in course of time

payments to shareholders become a mere expenditure to the policyholders with little or no compensating advantage.

There is, therefore, some tendency for insurance organisations to become mutual in character. In the United States several companies, including the Prudential and the Metropolitan, have been converted into mutual companies. In England the Standard Life Insurance Company was mutualised in 1925. In India this has not made any progress so far, although a few years ago there was a strong rumour that a prominent life office of Madras was taking steps to convert itself into a mutual company. It has been often suggested that the companies should be encouraged to become mutual concerns if the business is to continue as private enterprise and not be taken over by the State as a State enterprise. Some even suggest that the above process should be enforced by legal enactments. Before we pass any opinion upon it, it will be desirable to consider whether

(1) the nature of the insurance business is similar to that of other business wherefrom individuals can legitimately take profit, and

(2) the insurance business is of such social importance that its cost of management should be the net costs to the people whose needs it attends to.

The reply to question (1) will be largely based upon the two following considerations, viz., to what extent the prospective policyholder is free to bargain with a company for a reduced premium in case he is an exceptionally fine risk from the point of view of life insurance, judged by the standard fixed by the company, and, secondly, what degree of risk is involved in the conduct of the business to justify the large expenses of management due to the employment of experts, etc., and the appropriation of a considerable portion of the profits for the shareholders.

We know that the principle of insurance is to pool the risks to which every one is in some manner exposed, and to distribute this amongst its members. The risk remains whether or not the people join the group. The rates of premium are determined by factors already discussed, and they are fixed. Any modification made is only as a result of long experience. Persons desirous of insuring have got to pay the fixed rates and they have no opportunity to bargain.

Insurance may turn out to be either a gain or a loss to an individual, according as the event insured against happens early or late, but collectively the cost of the risk is equitably distributed amongst the members of the group. The death of a person is usually a loss to society, not only because it has a potential value, but also because the support of his dependents will naturally cease and their preparations for efficient living will be hampered. The first and fundamental characteristic of insurance business is its mutuality. If, therefore, insurance is a method of reducing the inevitable risks to which every individual is exposed, and if the result is a distinct social benefit, one is inclined to question whether the administrators of such a business should be allowed to take profits from the concern.

Whatever may have been the conditions during the early days of insurance business, the experience of insurance business in recent years is known. The principle of insurance has now developed to a high degree of perfection, and when applied to the present-day data of mortality, etc., the cost of insurance can be ascertained within narrow limits. The actual conduct of the business when once the principles are understood does not present great difficulties and in any case it is certainly not an adventure into unknown fields. It, therefore, stands to reason that the expenses of management should not be unduly high and attempts should be made to curtail the expenses to the minimum possible in view of the social importance of the business.

These considerations lead us to the conclusion that life insurance companies in this country should be progressively mutualised. Mutualisation will enable them to widen the scope of benefits offered and reduce the cost of insurance to policyholders. In the absence of legal enactments to encourage and hasten mutualisation of life insurance business, an individual company may convert itself into a mutual institution. There is no bar to it. The shareholders should be given an irredeemable or long-term preference stock to be issued in lieu of the shares and the management of the business should pass into the hands of policyholders themselves. This was what the Standard Assurance Company, already referred to, did.[1]

Secondly, our life companies should try to reduce the premiums charged by them. The reasons are now discussed. We have

1 See page 257.

observed that the mortality of the Indian insured is decreasing. The net rate of interest obtainable on investments, too, has not been varying to any great extent; in any case, the rate of interest assumed for the premium calculation has remained the same. On the other hand, premium rates in several cases have shown an increase (*vide* chapter on "Effect of Changing Conditions on Premium"). This is due to the increased loading which provides for (1) expenses, (2) bonus, and (3) unforeseen fluctuations.

The margin for unforeseen fluctuations will probably remain more or less a fixed percentage of the loading. But the provision for bonus may show a tendency to increase directly in proportion to the demand by the insuring public for increasing rates of bonus. But whatever be the actual rate of bonus declared, we should not lose sight of the fact that the bonus declared is only reversionary, while the lay public compares this with the excess of premium on a participating policy over that on a non-participating one, which apparently shows a good return. This comparison is erroneous. Actually the comparison should be made between the cash value of bonus that can be obtained immediately and the excess premium paid. It will be a revelation to many to know that several companies which prominently advertise their rates of bonus to attract business, actually pay cash values which vary but little from the excess premium paid.

The other factor which increases the loading and, consequently, the premium rate is a large provision for expenses, which may be considered under two heads, viz.,

1. Commission to agents, and
2. Expenses of office management.

The actual commission expenses incurred by individual companies have shown a very large increase in recent years. This has been the result of keen competition on their part to obtain larger volumes of new business for which the cost of procuration is necessarily high. One of the ways, therefore, of reducing the insurance cost to the public would be to do away with the agency system altogether, but under existing circumstances this does not appear to be possible or even desirable. We should, therefore, try and reduce the cost of the system as much as possible. At present companies appoint agents indiscriminately with a view to secure the maximum new business. Obviously agents appointed in this fashion are costly

both to the policyholders and to the company. One way, therefore, of reducing the cost of the agents and, thereby, the premium rates would be to improve the methods of recruitment. Secondly, the commission payable to the agents should be restricted. An attempt in this direction is made by the recent insurance legislation. That, however, limits the commission payable to primary agents only, and leaves a serious loophole through which the intention can be frustrated. Indeed, several companies are already circumventing the restriction by appointing persons as Organisers, Inspectors, and Chief Agents. These are not primary agents and hence the remuneration paid to them is not subject to legal restraints.

To close this loophole we suggest that the total expenses of management of a company in the first and subsequent years should be limited. A limitation of expenses, say, to 90 per cent. of the new premium income, and 10 per cent. of the renewal premium income, would seem to be adequate under the present conditions for all new business. This should, however, be in addition to the existing restriction on commissions payable to primary agents. This will prevent the companies from spending the amounts saved from commission account and will go to the benefit of the policyholders—for which it was intended.

The foregoing suggestion of reduction in premium is based on the study of the past experience of the offices. Since writing the above the conditions have materially changed. This has necessitated revision of the above suggestion. We are at the present moment a mere onlooker to the upheaval that is going on in the world and, in particular, the war of destruction waging in Europe. The effects of these have already reached our shores and it is a matter of time, when our whole economic structure will be modified for the prosecution of the war the end of which is forecast not earlier than three years by the most optimistic amongst us. The Government of India have already taken steps to control credit and to maintain the cheap money market on the lines of Great Britain and America. The low rate of interest now obtainable will, unlike after the Great War, probably continue even when peace amongst nations is restored. The needs of the moment and the cost of reconstruction after the war will more or less certainly see a steep rise in taxation. Insurance business will come in for its share of payment and it is, therefore, certain that, in spite of past

record, the net rate of interest to be earned by insurance companies on fresh and re-invested funds will be very low. This factor alone may prevent the reduction in premium rates, as originally suggested. If the money saved due to limitation of commission is continued to be spent as is now done—it will not be improbable that the companies will be forced to revise the premium rates to the detriment of the policyholders. This point, therefore, requires immediate attention to safeguard policyholders' interest.[1]

Ideas and principles are taken for granted once they are established. The Indian insurance business has so far been borrowing ideas from Western countries, especially England where, no doubt, the modern system of insurance has reached a high standard. But in India the business has several special conditions to face and it is time that we endeavoured to modify, wherever necessary, our insurance practice to suit our own special requirements. The Insurance Act of 1938 has attempted to achieve this end partly by embodying certain conditions for the benefit of policyholders. Amongst many, the following may be mentioned:

1. It has been made compulsory for companies to send notices regarding the options available under policies after a certain number of premiums have been paid by a policyholder who is unable to continue further payment.[2]
2. Minimum surrender values have been guaranteed and the companies are liable to make payment whenever called upon to do so.[3]
3. By the introduction of the system of nomination, the Act has satisfied a long-felt want of the insuring public and removed the practical difficulties relating to the assignment of policies with particular reference to Muslim policyholders.
4. The system of licensing of agents and the restriction of commission payable to them is an attempt in the right direction and would tend to give a status to the calling of Insurance Agency and to regulate the expenses of this vital business of which the commission forms an important share.

1 Already several leading companies have taken steps to revise and enhance their rates of premium, and at least one has already put them into effect.

2 No intimation of options need now be sent, if these appear in the policy. See page 250.

3 The guaranteed surrender values available from the end of the third year of the currency of the policy are to be shown in the policy itself. See footnote on page 255.

These measures would undoubtedly increase the protection enjoyed by the policyholders. We should, however, like to suggest a still further improvement which may at first sight appear revolutionary, but is really necessary in the interest of the policyholders as against the shareholders.

The position of the insured in the event of liquidation of a company was not satisfactory under the 1912 Act. The shareholders in a profitable concern could decide to put the concern into voluntary liquidation and thereby appropriate to themselves the total surplus available after providing adequate reserves for the payment of the sums assured only. This position was rectified by Act XX of 1928 which laid down that in case a company went into liquidation the surplus available had to be distributed amongst the shareholders and the policyholders in the same proportion in which it had been distributed during the ten years preceding. This amendment recognised that the policyholders also had a real and substantial stake in the affairs of the company. But will it not be better still to restrict the shareholders' interest to a maximum percentage of dividend and make the remaining balance of profit available for distribution amongst policyholders ? One method by which the shareholders keep away a large part of the funds obtained from the policyholders from being distributed amongst them is by what is called "undervaluing" the assets. This, no doubt, increases the stability of the concerns, but if the method be carried too far it may prevent distribution of reasonable surplus among policyholders. There will be no two opinions that the total liabilities of a company should be fully covered by its real assets. But if it is stipulated that the value of such assets should not exceed, say, 110 per cent. of its liabilities, a reasonably adequate cover would be provided for possible fluctuations in the value of the assets and thus be adequate to balance the liabilities. We may state here that in an Act passed in the Legislature of New York the limit of such surplus assets over liabilities in 1906 was fixed at 5 per cent. in the case of large companies and a more suitable margin for smaller companies. The Act made the annual distribution of surplus compulsory and it also prohibited the use of a rate of interest lower than 3 per cent. in the valuations and thereby prevented the companies from unduly showing an excessive liability. The experiment, however, was short-lived because there was a sudden and heavy fall in Stock Exchange securities which wiped out the excess assets over liabilities.

The experiment failed, but the principle was good, and we can take a lesson out of their failure and make suitable modifications. A higher provision of, say, 10 per cent. over the total liabilities may be allowed and the excess of assets may not be immediately distributed amongst policyholders but should be held exclusively in trust for them. In case of any future contingency resulting in a fall of the value of assets as happened in America, this fund may be drawn upon to cover the depreciation. Another condition may be imposed that the shareholders shall not participate in any surplus of assets ascertained at any valuation, if the effect will be to reduce the excess of assets below 10 per cent. of the liabilities. This will enable a company to become financially sound at an early date of its career and the permanent nature of the interest of the policyholders in the concern will be recognised and the shareholders' interest will be properly limited.

We shall finally suggest some ways and means by which Indian insurance business can be consolidated and further progress achieved. There should be a central organisation of insurance institutions which should interest itself with the problems that face the business as a whole. Such a body should be independent of control by any of the offices and must be constituted in such a manner as to have the confidence of all its members and those that are engaged or interested in the business of insurance. This may be achieved by electing representatives of various institutions and co-opting members whose advice may be deemed valuable. Such an institution can not only guide and advise but also co-ordinate the work of different organisations. It can commence its work by taking active interest in one or two vital problems confronting the insurance business of India.

We have already pointed out the need for mortality investigation. This should be undertaken by the all-India organisation. Obviously it would be a work in which all companies should heartily co-operate, for the resultant experience will be to the benefit of all companies. The central organisation should also interest itself in problems of the day, such as the business obtainable in Indian States, reciprocity with countries on the borders of India, re-insurance amongst sister Indian companies. It should also watch legislative developments in India as well as in foreign countries and suggest improvement wherever possible.

Under the ægis of this organisation special insurance study courses should be started and people who show an aptitude for them should be enabled to obtain practical training. These persons will then form a reservoir which companies can draw upon in making appointments at their offices. Suitable insurance courses should also be provided for the benefit of agents and the companies should only appoint agents who have acquired sufficient qualification. This will certainly improve the level of insurance business. This organisation may also take upon itself the task of popularising the insurance idea through advertisements on behalf of all the companies, encouraging studies in insurance, emphasising the benefits of insurance and the need for patronising Indian companies, in short, encouraging Indian insurance in all possible ways. While on it we may point out the complete absence of any opportunities for obtaining actuarial qualification in India similar to that obtained by passing examination of the Faculty of Actuaries, Scotland, and the Institute of Actuaries, England, and the Actuarial Society of America. A course for actuarial study based on actual conditions and needs of business in India should be formulated and examinations held. The Government of India can provide the necessary encouragement by granting recognition to such examination.

In spite of several handicaps such as apathy of the Indians themselves towards insurance, the absence of any insurance legislation before 1912 to regulate the business, the severe depreciation of assets during the war years of 1914-18 and the competition from foreign companies during the post-war years, the Indian insurance companies have been able to show satisfactory progress. This progress has been more marked during recent years. With the introduction of the Insurance Act of 1938 and its subsequent amendments, several of the disabilities which formerly hampered the growth of Indian companies have been removed. We are, therefore, confident that notwithstanding any initial setbacks due to the present unsettled conditions, the enforcement of the present Act coupled with the growing consciousness amongst the Indian public regarding insurance matters, the business of life insurance in India is entering a new phase of its development—a phase which will be marked by healthy progress and bright promise for the future.

Index to Appendices

APPENDIX I

Life Table—All India

MALES

Age	Living at age x	Dying between ages x and x+1	Mortality per cent.	Living between ages x and x+1	Living above age x	Mean after lifetime at age x
0	100,000	24,874	24.87	85,443	2,690,881	26.91
5	60,161	1,159	1.93	59,551	2,343,921	38.96
10	56,467	447	.79	56,243	2,054,065	36.38
15	54,112	532	.98	53,846	1,777,466	32.85
20	51,203	649	1.27	50,878	1,513,935	29.57
25	47,787	730	1.53	47,422	1,266,296	26.50
30	43,931	850	1.93	43,506	1,036,776	23.60
35	39,461	950	2.41	38,986	828,090	20.99
40	34,563	1,017	2.94	34,054	642,884	18.60
45	29,439	1,027	3.49	28,925	482,849	16.40
50	24,348	998	4.10	23,849	348,436	14.31
55	19,476	936	4.81	19,008	239,000	12.27
60	14,933	864	5.79	14,501	153,117	10.25
65	10,773	783	7.27	10,381	89,012	8.26
70	7,036	687	9.76	6,693	44,672	6.35
75	3,848	549	14.27	3,574	17,722	4.61
80	1,514	330	21.80	1,349	4,746	3.13
85	316	114	36.08	259	615	1.95
90	17	10	57.70	12	19	1.12

(*Details taken from page* 173 *of the Census Report, Vol. I, Part I*)

APPENDIX II

Comparative Expectations of Life at Decennial Ages as deduced from the results of the 1881, 1891, 1901, 1911 *and* 1931 *Censuses in all India with Corresponding Values for England*

MALE LIVES

Age	All India					England		
	1881	1891	1901	1911	1931	1901	1911	1921
0	23.67	24.59	23.63	22.59	26.91	44.07	46.04	55.62
10	34.00	35.46	34.73	33.36	36.38	49.65	52.35	54.64
20	28.55	29.24	28.59	27.46	29.57	41.04	43.67	45.78
30	23.80	23.66	22.90	22.45	23.60	33.06	35.29	37.40
40	18.90	18.75	17.91	18.01	18.60	25.65	27.27	29.19
50	13.93	14.28	13.59	13.97	14.31	18.89	19.85	21.36
60	9.25	10.12	9.53	10.00	10.25	12.90	13.83	14.36
70	5.44	6.48	5.80	6.19	6.35	8.02	8.25	8.75
80	2.87	3.65	3.07	3.06	3.13	4.40	4.64	4.93
90	1.00	1.69	1.23	1.15	1.12	2.32	2.37	2.82

(*Particulars taken from page* 165 *of the Census Report,* 1931, *Vol. I, Part I*)

APPENDIX III

Comparative Expectations of Life at Decennial Ages as deduced from the results of the 1881, 1891, 1901, 1911 *and* 1931 *Censuses in all India with Corresponding Values for England*

FEMALE LIVES

Age	All India					England		
	1881	1891	1901	1911	1931	1901	1911	1921
0	25.58	25.54	23.96	23.31	26.56	47.70	50.02	59.58
10	33.42	34.40	33.86	33.74	33.61	51.98	55.02	57.53
20	28.44	29.28	28.64	27.96	27.08	43.45	46.36	48.73
30	24.48	24.69	23.82	22.99	22.30	35.43	37.84	40.26
40	20.03	20.20	19.12	18.49	18.23	27.81	29.65	31.86
50	14.96	15.59	14.50	14.28	14.65	20.63	21.87	23.69
60	9.79	10.87	10.02	10.11	10.81	14.08	14.81	16.22
70	5.63	6.80	5.98	6.22	6.74	8.74	9.13	9.95
80	2.88	3.76	3.12	3.06	3.25	4.84	5.10	5.56
90	.91	1.75	1.64	1.10	1.18	2.68	2.55	3.13

(*Particulars taken from page* 168 *of the Census Report,* 1931, *Vol. I, Part I*)

APPENDIX IV

Specific Rates of Mortality by Age-groups—Males

(Rates per thousand inhabitants)

Age-group	Australia *1932–34 †1933	Denmark 1930–32 1930	England 1930–32 1931	France 1930–32 1931	Germany 1932–34 1933	India 1930–32 1931	Italy 1930–32 1931	Japan 1929–31 1930	United States 1929–31 1930
0–1	46.0	87.3	72.2	85.8	81.2	184.4	115.9	140.4	71.4
1–4	4.1	4.2	7.5	7.0	5.0	37.6	16.7	22.5	6.1
5–9	1.5	1.3	2.3	2.3	2.0	10.0	2.7	4.3	2.1
10–14	1.2	1.1	1.5	1.9	1.2	6.3	2.0	2.7	1.7
15–19	1.8	2.1	2.5	3.1	2.4	8.9	3.1	7.4	3.0
20–24	2.4	3.1	3.3	5.1	3.0	9.5	4.2	9.3	4.1
25–29	2.5	2.7	3.3	5.3	3.1		4.4	7.9	4.6
30–34	3.0	2.9	3.6	6.4	3.4	12.6	4.9	7.2	5.3
35–39	3.9	3.6	4.8	7.9	4.1		5.7	8.1	6.6
40–44	5.3	4.8	6.4	9.5	5.4	18.7	6.9	10.4	8.9
45–49	7.8	6.5	9.3	12.5	7.5		8.9	14.5	11.8
50–54	11.5	9.7	13.1	16.5	11.3	31.8	12.3	20.3	16.2
55–59	17.9	15.0	19.1	23.7	16.6		17.3	29.4	22.9
60–64	26.3	22.9	29.2	33.0	25.6	84.0	26.1	44.7	32.3
65–69	40.1	37.9	46.5	50.1	40.8		40.7	64.5	47.7
70–74	61.9	60.0	74.4	123.0	65.4		67.3	98.7	70.3
75 and over	129.1	134.6	149.9		136.7		145.2	174.8	138.6

* This line relates to the period for which the death figures are taken. † This line relates to the year of census.

For rates of mortality of other countries and notes, please refer to pages 74-75 of the Report.

(*From League of Nations Annual Epidemiological Report*, 1936, *published Geneva* 1938)

APPENDIX V

Life Fund and other Insurance Funds of Indian Insurance Companies

Year	Life Fund	Other Insurance Funds	Other Insurance Funds of companies which do not transact life business
	Rs.	Rs.	Rs.
1914 ..	....	6,26,833	....
1915 ..	6,62,90,472	5,86,561	....
1916 ..	7,00,92,191	5,72,871	....
1917 ..	7,19,40,583	3,60,806	....
1918 ..	7,36,77,827	4,14,654	....
1919 ..	7,87,79,213	4,08,682	....
1920 ..	8,47,16,087	4,53,701	....
1921 ..	8,63,17,474	4,74,911	....
1922 ..	9,37,13,206	4,15,788	....
1923 ..	10,29,50,624	4,70,059	....
1924 ..	11,46,44,205	6,31,680	....
1925 ..	12,58,04,419	6,76,107	....
1926 ..	13,76,66,837	5,55,234	....
1927 ..	15,72,32,219	5,84,723	....
1928 ..	17,19,07,000	1,02,23,000	38,40,000
1929 ..	18,73,84,000	1,17,25,000	41,79,000
1930 ..	20,53,40,000	1,17,15,000	44,16,000
1931 ..	22,46,11,000	1,14,69,000	39,11,000
1932 ..	25,10,18,000	1,16,12,000	36,32,000
1933 ..	28,75,04,000	1,26,63,000	38,38,000
1934 ..	31,91,64,000	1,37,20,000	38,99,000
1935 ..	35,23,36,000	1,44,00,000	37,87,000
1936 ..	40,29,02,000	1,40,78,000	47,87,000
1937 ..	45,14,16,000	1,48,78,000	53,38,000
1938 ..	50,59,94,000	1,39,85,000	37,30,000

APPENDIX VI

Analysis of Assets of Indian Insurance Companies which do not transact Life Insurance Business

(In thousands of rupees)

Year	Mortgages on properties in India	Loans on policies within their surrender value	Loans on stocks and shares and on personal security	India Government securities and Indian State securities	British, Colonial and Foreign Government securities	Port Trust, Improvement Trust and Municipal securities	Shares in Indian companies	Land and house property	Agents' balances outstanding, premiums outstanding, interest, etc.	Accrued interest	Deposit, cash, stamp, etc., furniture, stationery, etc.	Miscellaneous	Preliminary organisational expenses	Total assets
1928	0.98	..	..	57.53	9.41	7.01	3.18	0.75	8.06	0.79	2.56	9.73	..	1,53,18
1929	0.81	..	1.73	57.37	6.09	5.87	2.45	0.61	7.14	0.73	9.46	7.54	0.21	1,84,96
1930	..	..	4.66	61.60	5.14	5.43	2.26	1.30	5.83	0.72	3.68	9.38	..	1,99,76
1931	..	..	..	63.21	5.55	3.34	2.80	1.55	7.13	0.91	3.91	11.60	..	1,65,50
1932	..	..	..	59.93	5.06	3.16	3.50	1.46	6.50	0.91	4.93	14.55	..	1,74,41
1933	..	..	0.01	58.38	5.26	2.99	2.78	1.39	7.10	..	6.17	14.94	0.98	1,81,25
1934	..	..	0.02	52.67	6.65	2.66	2.38	0.79	8.44	..	14.97	11.42	..	1,91,04
1935	..	..	0.02	50.28	8.88	2.93	3.03	0.77	9.91	..	13.09	9.27	1.82	1,94,64
1936	..	..	0.14	48.98	6.03	3.23	5.90	2.82	5.34	0.56	11.43	14.25	1.32	2,30,17
1937	0.01	..	1.10	46.01	9.31	3.78	6.81	3.10	5.71	0.55	9.90	11.23	2.49	2,38,60
1938	0.02	..	1.79	46.08	13.09	3.50	6.58	2.75	7.92	0.54	13.93	3.27	0.55	2,45,09

APPENDIX VII

Comparative Rates of Interest earned by American, British and Indian Insurance Companies

Year	American*	British†	Indian‡
1913	....	4.04	4.23
1914	....	4.01	4.21
1915	....	3.90	4.29
1916	....	3.80	4.43
1917	....	3.91	4.78
1918	....	3.85	5.07
1919	4.85	3.94	5.27
1920	5.02	4.14	5.41
1921	5.29	4.27	5.88
1922	5.23	4.50	5.96
1923	5.38	4.59	6.26
1924	5.38	4.61	5.93
1925	5.34	4.67	5.70
1926	5.29	4.64	5.70
1927	5.32	4.68	5.56
1928	5.30	4.71	5.35
1929	5.33	4.79	5.49
1930	5.31	4.81	5.44
1931	5.23	4.61	5.42
1932	5.08	4.48	5.38
1933	4.75	4.24	5.17
1934	4.68	4.24	5.08
1935	4.47	4.21	4.93
1936	4.49	4.14	4.69
1937	4.47	4.12	4.76
1938	....	....	5.15

* Based on the earnings of 100 companies (*Spectator*—July 6, 1939).

† Calculated as per Hardy's Formula. Particulars of interest income and life fund taken from Bourne's Insurance Year Books.

‡ Taken from Indian Insurance Year Books.

APPENDIX IX

Table of Height, Weight and Chest Measurement for Males (as used by an Indian Insurance Company)

Height	Minimum chest measurement at ages				Weight	
	20	30	40	50	Maximum	Minimum
Ft. Ins.	Ins.	Ins.	Ins.	Ins.	Lbs.	Lbs.
5 0	30	31	32	32½	140	95
5 1	30¼	31¼	32¼	33	144	98
5 2	30½	31½	32½	33¼	151	101
5 3	30¾	32	32¾	33½	160	105
5 4	31	32¼	33	33¾	167	108
5 5	31½	32½	33½	34	171	111
5 6	31¾	33	33¾	34¼	174	114
5 7	32	33¼	34	34¾	180	117
5 8	32½	33¾	34¼	35	188	120
5 9	33	34	34¾	35½	196	124
5 10	33¼	34¼	35	35¾	205	128
5 11	33½	34¾	35½	36¼	210	133
6 0	33¾	35	36	36½	215	138

APPENDIX X

Indian Life Assurance Companies according to the date of establishment, showing the Province in which they were established

The year of establishment of the Indian insurance companies varies in the several Indian Insurance Year Books. We have attempted to give the correct date by references to original prospectuses of the companies or the recent Indian Insurance Year Books.

Name of company	Year of establishment	Year of exit	Province where established
Agra‡	Not known	1833	(Probably U. P.)
Oriental Life Assurance Company .. (Name changed to New Oriental in 1834, which was absorbed by the Medical, Invalid and General in 1853)	1818	1834	Bengal
Bombay Life Assurance Company..	1823	*	Bombay

For notes see last page of this appendix.

Name of company	Year of establishment	Year of exit	Province where established
Madras Equitable	1829	1921	Madras
Madras Widows and Orphans Fund.	1833	1926	"
Christian Mutual (M) .. .. (First started in U.P.)	1847	....	Punjab
Tinnevelly (M)	1849	....	Madras
Bengal Christian Family Pension Fund .. .. (Exempt from the Act)	1852	....	Bengal
Bombay Mutual (M)	1871	....	Bombay
Indian Life Assurance Co. .. .. (Absorbed by Standard Life Assurance Co.)	"	1878	(H. O. Meerut)
Oriental Government Security Life Assurance Co.	1874	....	Bombay
Bombay Widows' Pension Fund (M).	1876	....	"
Indian Ordnance .. .. .. (Subject to Act in 1926)	1883	....	"
Indian Christian (M) .. .. (Subject to Act in 1916)	1884	....	Madras
Goanese Mutual (M)	1885	....	Bombay
Mangalore Roman Catholic (M) ..	1888	....	Madras
B. B. & C. I. Zoroastrian (M) ..	"	....	Bombay
Parsee Zoroastrian (M) .. .. (Came under the Act in 1926)	"	1933	"
Bombay Zoroastrian (M)	1889	....	"
Gujerat Zoroastrian (M) .. .. (Subject to Act in 1914)	1891	....	"
Hindu Provident Fund (M) .. (First started in Simla. Name changed to Hindu Mutual)	"	....	Bengal
Indian Life	1892	....	Bombay (now Sind)
Punjab Mutual (M) .. .. .. (Subject to Act in 1919)	1893	....	Punjab
Indian Empire Branch of Rechabites (M)	"	1932	U. P.
Sind Hindu (M) .. .. .. (Subject to Act in 1916)	1894	1937	Punjab
Bharat	1896	....	"
Empire	1897	....	Bombay

For notes see last page of this appendix.

Name of company	Year of establishment	Year of exit	Province where established
Simla Mutual (M) .. .. .. (Subject to Act in 1914. Name changed to Mutual Help Association)	1899	....	Punjab
Northern Circars	1903	1914	Madras
Coromandel	1906	„	„
United India	„	....	„
All-India United	„	1914	Bombay
National Indian	„	....	Bengal
National	„	....	„
Co-operative Assurance	„	....	Punjab
Aswini	1907	1914	Madras
Indian Mercantile .. .. .. (Subject to Act in 1933)	„	....	Bombay
Hindustan Co-operative	„	....	Bengal
National Insurance and Banking ..	„	1915	Punjab
Bombay Life .. .. (Formerly Swadeshi Life)	1908	....	Bombay
Eastern India	„	1916	Bengal
Hindustan Assurance and Mutual Benefit	„	1931	Punjab
General (Ajmer)	„	....	Ajmer
India Equitable	„	....	Bengal
Chittagong	1909	1918	„
All-India and Burma (M)	1910	....	Madras
New Bombay Presidency	„	*	Bombay
Capital	„	1915	Bengal
Bengal Provident	„	*	„
Bengal Mercantile	„	Amalgamated	„
Popular	„	1920	Punjab
Arya	„	....	Assam§
South India Wesleyan (M) .. .. (Name changed to Wesleyan Methodist in 1928, again changed to Methodist Annuitant in 1933)	1911	....	Madras
Asian .. .. (Formerly Asian Commercial)	„	....	Bombay
Star of India	„	1917	Bengal
Universal	„	1918	„
Imperial Guaranteed	„	1914	„

For notes see last page of this appendix.

Name of company	Year of establish-ment	Year of exit	Province where established
Unique	1912	....	Bengal
Victoria	"	1916	"
Doaba	"	1913	Punjab
All-India Banking and Insurance ..	"	1914	"
National Relief Corporation ..	*	1913	"
Pioneer	1912	1914	Bombay
Indian Mutual Provident Fund ..	*	1913	"
Catholic Death Benefit	*	"	"
Mutual Beneficial	*	"	Bengal
Mysore Life .. .. (Name changed to Asiatic G. S. Life in 1927. H. O. changed from Mysore to Bangalore)	1913	....	Madras
Industrial and Prudential	"	....	Bombay
Crown	"	1913	"
Western India	"	....	"
East and West	"	....	"
Light of Asia	"	1940	Bengal
Provincial Life, Horse and Cattle ..	"	1923	"
Hindustani Bima .. .. .. (Formerly British Indian)	1914	Amalgamated	Punjab
Zenith	1916	....	Bombay
Shree Life .. .. (Subject to Act in 1932)	1917	....	"
Britannia .. .. (Voluntary liquidation in 1920—recommenced business in 1924)	"	1930	"
G. I. P. Railway Employees' .. (Subject to Act in 1926)	"	....	"
India Allied	1918	1924	U. P.
New India	1919	....	Bombay
New Era	"	1929	"
Bombay City	"	1921	"
Crescent .. .. (Subject to Act in 1921)	"	....	"
Universal Fire and General.. ..	"	....	"
Argus .. .. (Subject to Act in 1929)	"	....	"
Modern .. .. (Subject to Act in 1931)	"	Amalgamated	"

For notes see last page of this appendix.

Name of company	Year of establish- ment	Year of exit	Province where established
Jupiter General	1919	....	Bombay
Himalaya	,,	....	Bengal
Bengal Insurance and Real Property.	1920	....	,,
Venus .. .. (Subject to Act in 1926)	,,	....	Delhi
Indian Lion	1921	*	Bombay
Donation Union .. .. .. (Subject to Act in 1926)	,,	....	Madras
Great India	,,	1922	Bombay
Postal and R. M. S. .. .. (Subject to Act in 1932)	,,	....	Madras
Nagpur Pioneer	,,	....	C. P.
Rising Star	1924	1926	Bombay
Calcutta Insurance	,,	....	Bengal
Lakshmi	,,	....	Punjab
B. N. R. Death Benefit .. .. (Subject to Act in 1934)	,,	1935	Bihar and Orissa
All-India United and Pension Fund..	,,	1926	Delhi
Andhra Insurance .. .. .. (Subject to Act in 1926)	1925	....	Madras
Indian Mutual (M)	,,	....	,,
People's Insurance	1926	....	Punjab
Nag .. .. (Name changed from Ideal Demo- cratic)	,,	Amalgamated	C. P.
Tropical	1927	....	Delhi
India Life Benefit	,,	....	Madras
Great Peninsular .. .. .. (Formerly Indian Peninsular)	1928	Amalgamated	,,
Star of India Industrial and General. (Name changed to National Star Assurance Co.)	,,	....	,,
General Assurance Trust	,,	....	Bombay
People's Own	,,	1934	,,
Dawn	,,	....	,,
Prabhat	,,	Amalgamated	,,
Star of India	,,	....	Punjab
Indian Mutual Provident (M) .. (Subject to Act in 1934. Name changed to Indian Mutual Insur- ance)	,,	....	,,

For notes see last page of this appendix.

Name of company	Year of establishment	Year of exit	Province where established
Commonwealth	1928	....	Bombay
Popular	1929	....	Madras
South Indian	,,	....	,,
All-India Security	,,	Amalgamated	Bombay
Central Mutual (M)	,,	,,	,,
Indian Globe	,,	....	,,
United National	,,	Amalgamated	,,
Forward	,,	....	,,
East India	,,	....	Bengal
Great India	,,	Amalgamated	,,
Modern India	,,	,,	,,
Bengal Co-operative	,,	....	,,
Northern India	,,	....	Punjab
Aryan Life (M)	1930	Amalgamated	Bombay
Bombay Co-operative (M) .. .. (Formerly Bombay Provincial)	,,	....	,,
Peninsular	,,	1934	,,
Presidency	,,	....	,,
United Karnatak	,,	....	,,
Young India Insurance	,,	1932	,,
Ashok Insurance	,,	....	,,
Dominions	,,	....	Bengal
Metropolitan	,,	....	,,
Young India Assurance	,,	....	,,
Taj	,,	Amalgamated	Punjab
Angels	,,	1936	Delhi
Indian Provident (M)† .. .. (Name changed to Provident Insurance Society, Karachi)	,,	....	Sind
Deccan Assurance	1931	....	Madras
Jai Vijaya .. .. (Name changed from Jai Bharat). (Subject to Act in 1935)	,,	1937	,,
Gujerat Provident	,,	1932	Bombay
Neptune	,,	....	,,
New Eastern	,,	1934	,,
Sri Guru Nanak	,,	1937	,,
Tarun Assurance	,,	....	,,
Bhagyalakshmi	,,	....	Bengal
Eastern National	,,	....	,,

For notes see last page of this appendix.

Name of company	Year of establishment	Year of exit	Province where established
Genuine	1931	Amalgamated	Bengal
Asia Mutual (M) .. .. .. (Subject to Act in 1937)	,,	....	,,
Radical	,,	....	,,
Prabartak .. .. (Subject to Act in 1934)	,,	....	,,
Navjivan .. .. (Subject to Act in 1937)	,,	....	,,
Great Orient	,,	Amalgamated	Punjab
Swadeshi Bima	,,	....	U. P.
Agarwal Assurance	,,	Amalgamated	Ajmer
Federal	,,	....	Delhi
Krishna	,,	....	,,
All-India Railway Men's	,,	Amalgamated	C. P.
Mutual Assurance .. .. .. (Formerly Madras Assurance)	1932	....	Madras
Indian Federation	,,	1932	,,
South Indian Co-operative	,,	....	,,
Commercial	,,	....	Bombay
Depositors'	,,	....	,,
Muslim Provident	,,	1937	Sind
B. B. & C. I. Co-operative Mutual (M)	,,	....	Bombay
Navabharat	,,	1938	,,
Sind Life	,,	....	Sind
Eastern Federal	,,	....	Bengal
United Assurance	,,	Amalgamated	,,
Sun Light	,,	....	Punjab
Unity	,,	Amalgamated	,,
Asoka Assurance .. .. .. (Name changed to Great Ashok)	,,	....	Patna (Bihar)
Bihar National	,,	....	,,
Servants of India	,,	....	Delhi
Ganesh	1933	Amalgamated	Madras
India Life Benefit (M)	,,	1937	,,
Indo-Union	,,	....	,,
Reliance	,,	....	,,
Vijayalakshmi	,,	....	,,
Great Social	,,	....	Bombay
Indian Relief	,,	1936	,,

For notes see last page of this appendix.

Name of company	Year of establish-ment	Year of exit	Province where established
Karachi Provident	1933	1937	Sind
Long Life	,,	....	Bombay
Sind Masters Sahita	,,	1937	Sind
Sind Mutual	,,	1935	,,
Sind Popular	,,	,,	,,
Sind Relief	,,	,,	,,
Central Popular	,,	1936	,,
Swaraj Banking and Insurance ..	,,	....	Bombay
Warden	,,	....	,,
Rajluxmi (M)	,,	1936	Sind
Aryasthan	,,	....	Bengal
Bengal Co-operative	,,	1936	,,
E. B. Ry. Employees' Co-operative Benefit (M) .. .. .. (Subject to Act in 1938)	,,	....	,,
Sakti	,,	....	Punjab
Sunshine	,,	....	,,
Behar United	,,	....	Bihar
New Asiatic	,,	....	Delhi
New Insurance	,,	....	U. P.
Equity	,,	Amalgamated	,,
Orion	,,	1935	Ajmer
Indo-Asiatic	,,	Amalgamated	,,
Sterling	,,	....	Delhi
National Mutual Assurance (M) ..	1934	....	Madras
Mysore Insurance .. .. .. (Subject to Act in 1938)	,,	....	,,
Guardian of India .. .. .. (Name changed to New Guardian of India Life)	,,	....	,,
Indo-Burma	,,	....	,,
Premier General	,,	Amalgamated	Bihar
Premier Insurance and Building ..	,,	....	Madras
All-India Home Relief	,,	1935	Bombay
B. B. & C. I. Co-operative Mutual (M)	,,	1936	,,
South India Fire and General ..	,,	....	Madras
Champion	,,	....	Bombay
Golden Provident	,,	1935	,,
Sentinel	,,	....	,,

For notes see last page of this appendix.

Name of company	Year of establishment	Year of exit	Province where established
Indian Economic	1934	....	Bengal
Hukumchand Life	,,	Amalgamated	,,
Victory	,,	,,	Punjab
Golden Eagle	,,	....	,,
New State of India	,,	....	,,
Saraswati	,,	....	,,
All-India United	,,	....	U. P.
Premier	,,	....	Bihar and Orissa
Provincial Union	,,	....	Delhi
Social Life	,,	....	C. P.
Free India	,,	....	U. P.
Indian Insurance	,,	....	,,
Jwala Assurance	,,	....	,,
Standard of India .. .. .. (Name changed to Frontier)	,,	Amalgamated	N.W.F.P.
Midland	1935	....	Madras
Meenakshi	,,	Amalgamated	,,
Indian Circar	,,	....	,,
Hindustan Mutual (M)	,,	....	,,
Canara Mutual (M)	,,	....	,,
Indo-Lanka	,,	1938	,,
Kaisari-Hind	,,	....	Bombay
World-wide	,,	....	,,
Sind National Welfare	,,	1936	Sind
Indian Progressive	,,	....	Bombay
Sind Central Provident	,,	1936	Sind
Trust of India	,,	....	Bombay
Mahabir	,,	....	Bengal
India Union	,,	1938	,,
Jatiya Kalyan	,,	Amalgamated	,,
Muslim India	,,	....	Punjab
Central Life and General	,,	Amalgamated	,,
Good Luck	,,	,,	,,
Hindustan National	,,	,,	,,
Searchlight	,,	,,	,,
Agra Mutual (M)	,,	....	U. P.
Bharati Bima	,,	....	,,
Adarsha Bima	,,	....	,,
Hindustan Mutual (M)	,,	....	,,
Mother India	1936	....	Madras

For notes see last page of this appendix.

Name of company	Year of establishment	Year of exit	Province where established
Great Home	1936	....	Bombay
Goodwill	,,	....	,,
Sahyadri	,,	....	,,
New Swastik	,,	....	,,
Insurance of India	,,	....	Bengal
National Mercantile	,,	....	,,
Bangalakshmi	,,	....	,,
Palladium	,,	....	,,
Indian Prudential	,,	1937	,,
Glory of India	,,	Amalgamated	Punjab
Indian Insurance Corporation ..	,,	....	,,
India Oriol	,,	....	,,
Central Mutual Benefit	,,	....	C. P.
Sylvan Star	,,	....	Delhi
Providential	,,	Amalgamated	U. P.
Bhaskar	,,	....	Assam
Tilak	,,	....	Delhi
Vanguard	1937	....	Madras
Hyderabad Pioneer	,,	....	,,
Bombay Postal (M)	,,	....	Bombay
Investment Trustee	,,	1938	,,
Vikram	,,	....	,,
Bombay Alliance	,,	....	,,
Happy India	,,	....	Bengal
Rajasthan	,,	....	,,
Universal Protector	,,	Amalgamated	,,
Napier	,,	....	,,
Life Insurance Home (India) ..	,,	....	,,
Indus	,,	1938	Punjab
Great India	1938	....	Bombay
Foresight	,,	....	Punjab
Snowpeak Mutual (M)	1939	....	Bengal
Sushil Life and General	,,	....	Delhi
Policyholders' Assurance	,,	....	Punjab
National City Insurance ‖	1940	....	Bengal

* Year not available from the Government reports.

‡ Absorbed by the Medical, Invalid and General Insurance Co.

† This name does not appear since the 1938 issue of the Indian Insurance Year Book.

§ Head Office now transferred to Calcutta.

‖ Advertisement in "Modern Review," April 1941.

A list of companies already amalgamated or in the course of amalgamation with other companies is given on pages 33-35.

The names of companies with which they are amalgamated are also given against each.

APPENDIX XI

Funds Exempted from the Insurance Act of 1912

Funds connected with Indian Government Services

Post Office Insurance Fund
Indian Civil Service Annuity Fund
Indian Civil Service Family Pension Fund
Bengal Uncovenanted Service Family Pension Fund
Bombay Uncovenanted Service Family Pension Fund
Bengal and Madras Service Family Pension Fund
Indian Military Service Family Pension Fund
Queen's Military Widows' Fund
Madras Military Assistant Surgeons' Fund
Bengal Civil Fund
Madras Civil Fund

Other Funds

Bengal Christian Family Pension Fund*
General Family Pension Fund
Hindu Family Annuity Fund

* Also mentioned in the list of Indian insurance companies.

APPENDIX XII

List of Foreign Companies which transacted Business in India, but withdrew prior to 1870

Name and year of establishment	Year of commencement of business in India	Year withdrawn
Albert (1838) .. .. (The company first started under the title of " Freemasons and General Life Assurance Loan Annuity Reversion Interest Co." In 1849 it changed its name to Albert and later in 1857 to Albert and Times. In 1860 it again changed its name to Albert and Medical, and in 1861 to Albert Medical and Family Endowment. These changes did not receive legal authorisation and in 1863 it resumed its original name)	1860	1869 (Went into liquidation)
Colonial Life Insurance Co. (1846) ..	1846	1866 (Absorbed by the Standard Life Insurance Co., Ltd.)
European Life Assurance Co. ..	....	1871
Family Endowment (1835)	....	1861 (Absorbed by the Albert Life Assurance Co.)
Indian Laudable	....	1865 (Absorbed by the Albert Life Assurance Co.)
The Medical Invalid and General (1841)	....	1860 (Absorbed by the Albert Life Assurance Co.)

APPENDIX XIII

Alphabetical List of Foreign Insurance Companies in India

Name and year of establishment	Year of commencement of business in India	Year withdrawn
Alliance (1824)	Prior to 1912	1926
Allianz und Stuttgarter (1889) ..	1929	1939 (Management of Indian business taken over by Government of India)
Atlas (1808)	Prior to 1912	....
British Empire Mutual Life	1872	1902 (Absorbed by the Pelican. Name changed to Pelican and British Empire)
Burma National (1937)	1937	....
China Underwriters (1924)	1924	....
City of Glasgow	1881	1913 (Amalgamated with Scottish Union and National)
Crown Life (1900)	1930	....
Commercial Union (1861)	1870	1939
Confederation Life Association (1871).	1937	1937
China Mutual (1899)	Prior to 1912	1923 (Indian business including that of Shanghai Life transferred to the Sun Life of Canada)
Equitable	1882	Shortly afterwards
English and Scottish Law Life Assurance Association	Prior to 1912	Exempt from 1912 Act (Absorbed by Eagle Star and British Dominion in 1918)
Gresham (1848)	1893	....
Great Eastern (1908)	1916	....
Law Union and Crown (1825) ..	Prior to 1907	The Law Union Fire and Life (1854) amalgamated with the Crown Life (1825) in 1890. Title changed to Law Union

Name and year of establishment	Year of commencement of business in India	Year withdrawn
		and Crown. This company amalgamated with the Rock Life (1806) in 1909 and name changed to Law Union and Rock. Business continued in the name of Law Union and Rock
Law Union and Rock (1806) ..	1909	Allied with the London and Lancashire in 1926
Liverpool London and Globe (1836).	1853	1939
Liverpool Victoria (about 1906) ..	1906	1913 (Amalgamated with Commercial Union)
London Assurance Corporation (1720)	1864	1913
London and Lancashire Life and General Assurance Association. (Name changed to London and Scottish about the year 1913)	Prior to 1907	1907 (Exempt from the 1912 Act)
Manufacturers (1887)	1901	1939
National Mutual (1830)	Prior to 1912	1914
National Mutual of Australasia (1869)	About 1908	....
New York (1845)	1885	1922 (Indian business transferred to the Sun Life of Canada)
North British and Mercantile (1809)..	1861 Life business in 1864	....
Northern (1836)	Prior to 1907	1939
Norwich Union (1808)	About 1908	....
Provident Mutual (1840)	Prior to 1907	....
Pelican and British Empire	1902	1907 (Amalgamated with Phœnix)
Phœnix (1782)	1907	....
Prudential (1848)	1924	....

Name and year of establishment	Year of commencement of business in India	Year withdrawn
Royal (1845)	1848 Life business probably in Calcutta in 1860. First Bombay Policy (Life) dated 1871	....
Royal Exchange (1720)	Prior to 1907	....
Royal London Auxiliary (1910) ..	1915	1922 (Merged into the Royal London Mutual Insurance Society in 1922)
Scottish Metropolitan Assurance Company (1876)	Prior to 1912	Exempt from the 1912 Act (Controlling interest purchased by the London and Scottish Assurance Corporation in 1912)
Scottish Union and National (1824)..	1905	....
Star Assurance	Prior to 1907	Exempt from the 1912 Act (Absorbed by the Eagle Star and British Dominion in 1917)
Standard (1825)	1846	1939
Scottish Amicable (1826)	1902	1909
Sun Life of Canada (1865)	1891	....
Sun Life Assurance Company of India (1891)	1891	1896 (Amalgamated with Sun Life of London)
Sun Life Assurance of London (1810).	Prior to 1912	1907 (Exempt from the 1912 Act)
Shanghai (1905)	1916	1920 (Absorbed by the China Mutual)
Universal Life Assurance Co. (1835)..	1840	1901 (Amalgamated with the North British)
Winterthur Swiss (1923)	1932	....
Yorkshire (1824)	1915	....

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